No. 17-8151 *** CAPITAL CASE ***	
Title:	Russell Bucklew, Petitioner v. Anne L. Precythe, Director, Missouri Department of Corrections, et al.
Docketed:	March 15, 2018
Linked with 17A911	
Lower Ct:	United States Court of Appeals for the Eighth Circuit
Case Numbers:	(17-3052)
Decision Date:	March 6, 2018
Rehearing Denied:	March 15, 2018
Questions Presented	

DATE	PROCEEDINGS AND ORDERS
Mar 15 2018	Petition for a writ of certiorari and motion for leave to proceed in forma pauperis filed. (Response due April 16, 2018) Motion for Leave to Proceed in Forma Pauperis Petition Appendix Certificate of Word Count Proof of Service
Mar 15 2018	Application (17A911) for a stay of execution of sentence of death, submitted to Justice Gorsuch. Main Document
Mar 16 2018	Brief of respondents Anne Precythe, et al. in opposition filed. Main Document Other Proof of Service
Mar 19 2018	Reply of petitioner Russell Bucklew filed. Main Document Certificate of Word Count Proof of Service
Mar 20 2018	Application (17A911) referred to the Court.
Mar 20 2018	Application (17A911) granted by the Court. The application for stay of execution of sentence of death presented to Justice Gorsuch and by him referred to the Court is granted pending the disposition of the petition for a writ of certiorari. Should the petition for a writ of certiorari be denied, this stay shall terminate automatically. In the event the petition for a writ of certiorari is granted, the stay shall terminate upon the sending down of the judgment of this Court. The Chief Justice, Justice Thomas, Justice Alito, and Justice Gorsuch would deny the application for stay of execution.

Mar 22 2018	DISTRIBUTED for Conference of 4/13/2018.
Apr 06 2018	Brief amici curiae of The American Civil Liberties Union, et al. filed. (Distributed) **Main Document** **Certificate of Word Count** **Proof of Service**
Apr 16 2018	DISTRIBUTED for Conference of 4/20/2018.
Apr 23 2018	DISTRIBUTED for Conference of 4/27/2018.
Apr 30 2018	Motion to proceed in forma pauperis and petition for a writ of certiorari GRANTED. In addition to the questions presented in the petition, the parties are directed to brief and argue the following Question: Whether petitioner met his burden under Glossip v. Gross, 576 U. S. ____ (2015), to prove what procedures would be used to administer his proposed alternative method of execution, the severity and duration of pain likely to be produced, and how they compare to the State's method of execution.
May 08 2018	Motion for an extension of time filed. **Main Document**
May 16 2018	Motion to extend the time to file the joint appendix and petitioner's brief on the merits granted and the time is extended to and including July 16, 2018.
Jun 26 2018	Blanket Consent filed by Petitioner, Russell Bucklew **Blanket Consent**
Jul 06 2018	Blanket Consent filed by Respondent, Anne Precythe, et al. **Blanket Consent**
Jul 16 2018	Brief of petitioner Russell Bucklew filed. **Main Document** **Certificate of Word Count** **Proof of Service**
Jul 16 2018	Petitioner's Unopposed Motion to File Joint Appendix – Volume III Under Seal of Russell Bucklew not accepted for filing. (Amended motion submitted.) (August 15, 2018)
Jul 16 2018	Joint appendix (2 volumes) filed. (Statement of costs filed) **Main Document** **Main Document**
Jul 20 2018	Brief amici curiae of The American Civil Liberties Union, et al. filed. **Main Document** **Certificate of Word Count** **Proof of Service**
Jul 23 2018	Brief amicus curiae of American Medical Association in support of neither party filed. **Main Document** **Certificate of Word Count** **Proof of Service**

Jul 23 2018	Brief amicus curiae of Megan McCracken and Jennifer Moreno filed. **Main Document** **Certificate of Word Count** **Proof of Service**
Jul 23 2018	Brief amicus curiae of Pharmacy, Medicine, and Health Policy Experts filed. **Main Document** **Certificate of Word Count** **Proof of Service**
Jul 23 2018	Brief amicus curiae of Association for Accessible Medicines in support of neither party filed. **Main Document** **Certificate of Word Count** **Proof of Service**
Jul 23 2018	Brief amicus curiae of Former Judges and Prosecutors filed. **Main Document** **Other** **Certificate of Word Count** **Proof of Service**
Jul 23 2018	Brief amici curiae of Scholars and Academics of Constitutional Law filed. **Main Document** **Proof of Service** **Certificate of Word Count**
Jul 23 2018	Brief amici curiae of Former Corrections Officials filed. **Main Document** **Certificate of Word Count** **Proof of Service**
Aug 15 2018	Brief of respondent Anne Precythe, et al. filed. **Main Document** **Proof of Service** **Certificate of Word Count**
Aug 15 2018	Motion to file Volume III of the joint appendix under seal with redacted copy of transcript for public record filed by petitioner Russell Bucklew. **Main Document** **Other** **Proof of Service**
Aug 20 2018	SET FOR ARGUMENT on Tuesday, November 6, 2018
Aug 22 2018	DISTRIBUTED for Conference of 9/24/2018.
Aug 22 2018	Brief amici curiae of States of Texas, Alabama, Arizona, Arkansas, Colorado, Florida, Georgia, Idaho, Indiana, Kansas, Louisiana, Mississippi, Nebraska, South Carolina, Tennessee, Utah, Wyoming filed. (Distributed) **Main Document** **Certificate of Word Count** **Proof of Service**
Aug 22 2018	Brief amici curiae of Arizona Voice for Crime Victims, Inc., and Melissa Sanders filed. (Distributed) **Main Document** **Certificate of Word Count** **Proof of Service**
Sep 06 2018	Lodging proposal of petitioner filed. (Distributed) **Main Document**
Sep 10 2018	Record requested from the U.S.C.A. 8th Circuit.

Sep 10 2018	Opposition of respondent to lodging proposal of petitioner filed. (Distributed) **Main Document**
Sep 12 2018	CIRCULATED
Sep 14 2018	Reply of petitioner Russell Bucklew filed. (Distributed) **Main Document** **Certificate of Word Count** **Proof of Service**
Sep 19 2018	Record received from the U.S.C.A. 8th Circuit. The record is complete. (1 Box).
Oct 01 2018	Motion to file Volume III of the joint appendix under seal with redacted copy of transcript for public record GRANTED.
Oct 19 2018	Motion to appoint counsel filed by petitioner Russell Bucklew. **Main Document**
Oct 31 2018	DISTRIBUTED for Conference of 11/16/2018.
Nov 06 2018	Argued. For petitioner: Robert Hochman, Chicago, Ill. For respondents: D. John Sauer, State Solicitor, Jefferson City, Mo.
Nov 19 2018	Motion to appoint counsel filed by petitioner GRANTED. and Cheryl A. Pilate, Esquire, of Kansas City, Missouri, is appointed to serve as counsel for the petitioner in this case.

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No. 17-

IN THE

Supreme Court of the United States

RUSSELL BUCKLEW,

Petitioner,

v.

ANNE PRECYTHE, *et al.*,

Respondents.

On Petition for a Writ of Certiorari to the United States Court of Appeals for the Eighth Circuit

PETITION FOR A WRIT OF CERTIORARI

EXECUTION SCHEDULED FOR MARCH 20, 2018

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March 15, 2018

CAPITAL CASE

QUESTIONS PRESENTED

Should a court evaluating an as-applied challenge to a state's method of execution based on an inmate's rare and severe medical condition assume that medical personnel are competent to manage his condition and that the procedure will go as intended?

Must evidence comparing a state's proposed method of execution with an alternative proposed by an inmate be offered via a single witness, or should a court at summary judgment look to the record as a whole to determine whether a factfinder could conclude that the two methods significantly differ in the risks they pose to the inmate?

Does the Eighth Amendment require an inmate to prove an adequate alternative method of execution when raising an as-applied challenge to the state's proposed method of execution based on his rare and severe medical condition?

PARTIES TO THE PROCEEDING AND RULE 29.6 STATEMENT

Petitioner is Russell Bucklew. Respondents are Anne L. Precythe, David Dormire, and Troy Steele, personnel with the Missouri Department of Corrections. No party is a corporation.

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PETITION FOR A WRIT OF CERTIORARI

Russell Bucklew petitions for a writ of certiorari to review the decision of the Eighth Circuit.

OPINIONS BELOW

The opinion of the Eighth Circuit is reported at — F.3d —, No. 17-3052, 2018 WL 1163360 (8th Cir. Mar. 6, 2018) and is reproduced in the appendix to this petition at Pet. App. 3a–25a. The opinion of the district court is not reported and is reproduced at Pet. App. 26a–38a.

JURISDICTION

The Western District of Missouri had jurisdiction over Bucklew's Section 1983 claim pursuant to 28 U.S.C. § 1343. The Eighth Circuit had jurisdiction pursuant to 28 U.S.C. § 1292(a)(1).

The Eighth Circuit entered judgment on March 6, 2018, Pet. App. 3a, and denied Mr. Bucklew's petition for panel rehearing or rehearing *en banc* on March 15, 2018, Pet. App. 1a–2a. This Court has jurisdiction under 28 U.S.C. § 1254(1).

CONSTITUTIONAL AND STATUTORY PROVISIONS INVOLVED

The Eighth Amendment of the U.S. Constitution provides that "[e]xcessive bail shall not be required, nor excessive fines imposed, nor cruel and unusual punishments inflicted." U.S. Const. amend. VIII.

Missouri's death penalty statute, Mo. Stat. Ann. § 546.720.1, provides in relevant part:

> The manner of inflicting the punishment of death shall be by the administration of lethal gas

> or by means of the administration of lethal injection. And for such purpose the director of the department of corrections is hereby authorized and directed to provide a suitable and efficient room or place, enclosed from public view, within the walls of a correctional facility of the department of corrections, and the necessary appliances for carrying into execution the death penalty by means of the administration of lethal gas or by means of the administration of lethal injection.

STATEMENT OF THE CASE

Russell Bucklew is scheduled to be executed on March 20 by a method that is very likely to cause him needless suffering. Neither the district court nor the court of appeals denies that. Bucklew's very likely suffering stems from an exceedingly rare disease called cavernous hemangioma. The disease is progressive, and has caused unstable, blood-filled tumors to grow in his head, neck, and throat. Those highly sensitive tumors easily rupture and bleed. The tumor in his throat often blocks his airway, requiring frequent, conscious attention from Bucklew to avoid suffocation. His peripheral veins are also compromised. That means that the lethal drug cannot be administered in the ordinary way, through intravenous access in his arms. An expert who examined Bucklew concluded that while undergoing Missouri's lethal injection protocol, Bucklew is "highly likely to experience ... the excruciating pain of prolonged suffocation resulting from the complete obstruction of his airway." Pet. App. 109a ¶ III.E. As he struggles to breathe through the execution procedure, Bucklew's throat tumor will likely rupture. "The resultant hemorrhaging will further impede Mr. Bucklew's airway by filling his mouth and airway with blood, causing him to choke and cough on his own blood dur-

ing the lethal injection process." *Id.* ¶ III.F. Bucklew's execution will very likely be gruesome and painful far beyond the pain inherent in the process of an ordinary lethal injection execution.

In a 2-1 decision, a panel of the Eighth Circuit concluded that this execution is not cruel and unusual solely because, in its view, Bucklew failed to prove that his alternative method would substantially reduce his risk of needless suffering. (The full Eighth Circuit denied rehearing *en banc*, with 4 judges dissenting.) That ruling is based on three distinct misreadings and dangerous extensions of this Court's decisions in *Baze v. Rees*, 553 U.S. 35 (2008) (plurality opinion), and *Glossip v. Gross*, 135 S. Ct. 2726 (2015).

First, the panel believed that when evaluating the risks posed by the state's method of execution in light of an inmate's rare and complicating medical condition, *Glossip* and *Baze* require courts to assume that state personnel are competent to deal with the condition and that all will go as intended. Pet. App. 17a. Nothing in *Glossip* or *Baze* warrants such an assumption. And such a rule makes no sense in an as-applied challenge. The whole point of such a challenge is that a generally lawful method of execution, when applied to someone with a particular medical condition, will very likely involve needless suffering. The claim does not assert that state officials, when they designed the protocol, *intended* to make the inmate suffer needlessly. When drawing up the protocol, state officials surely did not think about an inmate with cavernous hemangioma in the throat plus compromised veins. Nor does the claim assert that an "isolated mishap" in implementing the protocol might produce harm that does not qualify as cruel within the meaning of the Eighth Amendment. *Baze*, 553 U.S. at 50 (plurality opinion). The claim asserts

that *following* the protocol will, in light of the inmate's medical condition, very likely produce needless suffering.

The issue arises here in the context of a discovery dispute. The Eighth Circuit approved the district court's decision to close off discovery into whether the medical professionals charged with administering the execution have the training and knowledge to handle the known complications that will arise in light of Bucklew's rare medical condition. The medical team has the authority under Missouri's execution protocol to make discretionary judgments about how to attempt venous access and other details directly relevant to Bucklew's risk of suffering. Bucklew sought such discovery (allowing for necessary safeguards to preserve the anonymity of the medical personnel involved) to establish how the skill and expertise of the medical team will impact the known risks of suffering that his condition creates. But he was denied any access to the medical personnel and thereby foreclosed from presenting to the court the full extent of his risks. The Eighth Circuit agreed that foreclosing discovery was proper because the court had to assume "that the procedure will go as intended." Pet. App. 17a.

Such an assumption is at odds with this Court's decisions. The plurality opinion in *Baze* specifically stated that a claim asserting a known, "objectively intolerable risk of harm" is, unlike a claim based on the prospect of a mere mistake, cognizable as a challenge to a method of execution under the Eighth Amendment. 553 U.S. at 50 (plurality opinion) (quoting *Farmer v. Brennan*, 511 U.S. 825, 846 (1994)). The Eighth Circuit's ruling here prevents an inmate from proving such a claim.

In so doing, it authorizes what amounts to "deliberate indifference" to an inmate's needless suffering. *Estelle v. Gamble*, 429 U.S. 97, 104-06 (1976) (deliberate indifference to inmate's medical condition violates the Eighth Amendment). As detailed below, the record establishes that Missouri's execution medical team will be unaware of petitioner's condition and will take steps that will cause petitioner to experience needless pain and a prolonged sense of suffocation. The record already establishes that the execution will *not* go as intended. As Justice Ginsburg recently noted, in advance of the botched execution of Doyle Lee Hamm, there is no substitute for adversarial testing of the skills and qualifications of the state's medical team to handle problems that we already know will arise. *Hamm v. Dunn*, 138 S. Ct. 828 (2018) (Ginsburg, J., dissenting). To assume that all will go as intended is to altogether assume away as-applied challenges to methods of execution. This Court should accept review to clarify how inmates can prove the risks they face when raising an as-applied challenge to a method of execution.

Second, the Eighth Circuit understood *Glossip* to impose a novel burden at summary judgment in a method-of-execution case that is at odds with summary judgment law. As Judge Colloton's dissent makes clear, a reasonable factfinder could conclude on this record that a lethal gas protocol proposed by Bucklew will substantially reduce Bucklew's suffering. Pet. App. 22a. Bucklew's expert opined that Bucklew will very likely experience a sense of suffocation for several minutes under the lethal injection protocol. Respondents' expert opined that Bucklew would likely experience a sense of suffocation for merely 20–30 seconds if lethal gas was used. The panel majority refused to accept this as evidence

comparing the two methods because no single witness said one method would be better than the other. *Id.* at 14a. That is, the panel believed *Glossip* not only requires an as-applied challenge to present evidence comparing the state's method with an alternative, but the evidence must come in the form of a single witness who believes one method is significantly better than the other.

That is not and should not be the law. The question is not whether any one *witness* compared and distinguished the risks of lethal injection with the risks of lethal gas but, as Judge Colloton observed, whether there is evidence in the *record* that distinguishes between the two. Pet. App. 22a. Judge Colloton's view follows logically from this Court's repeated statements that evidence at summary judgment is evaluated in light of the record as a whole. *Ricci v. DeStefano*, 557 U.S. 557, 586 (2009); *Matsushita Elec. Indus. Co. v. Zenith Radio Corp.*, 475 U.S. 574, 587 (1986). The panel majority read *Glossip* to change that rule exclusively for method-of-execution claims. Nothing in *Glossip* suggests such a unique procedural burden is appropriate. And allowing it to stand would cripple many method-of-execution claims because experts for an inmate will often labor under ethical obligations that preclude them from designing a "better" way to kill someone.

Third, petitioner respectfully submits that this Court should not require inmates raising an as-applied challenge to their methods of execution to design an alternative "that is 'feasible, readily implemented, and in fact significantly reduce[s] a substantial risk of severe pain.'" *Glossip*, 135 S. Ct. at 2737 (quoting *Baze*, 553 U.S. at 52). The Court imposed that burden on inmates in cases raising facial challenges to their methods of execution. The Eighth Cir-

cuit (in a 6-4 *en banc* ruling) and the Eleventh Circuit have imposed that burden on inmates raising as-applied challenges to their methods of execution, and the Sixth Circuit (in a *habeas* case) suggested such a burden exists. Pet. App. 85a–88a; *Gissendaner v. Comm'r, Ga. Dep't of Corr.*, 803 F.3d 565 (11th Cir. 2015) (per curiam); *In re Campbell*, 874 F.3d 454 (6th Cir. 2017) (per curiam). The Florida Supreme Court has done so as well. *Correll v. State*, 184 So. 3d 478 (Fla. 2015) (per curiam). Several judges dissented in these cases. The reasons for imposing such a burden in a case presenting a facial challenge do not and should not apply to inmates presenting an as-applied challenge based on an exceedingly rare medical condition. This Court should accept review here and clarify that inmates presenting an as-applied challenge need not custom-design their own method of execution in light of the idiosyncratic reasons the state's generally lawful method of execution will prove cruel as applied to them.

This Court is well aware of the number of attempted but failed executions that have not gone according to plan. *See Arthur v. Dunn*, 137 S. Ct. 725, 733 (2017) (Mem.) (Sotomayor, J., dissenting). Some of the problems that have arisen in the past and produced excruciating and gruesome results are, as here, predictable. Only this Court can establish uniform national standards that will reduce the frequency of these horrible events. In doing so, this Court would not only protect the irreducible human dignity of the inmates bringing such claims. It would also protect the essential dignity of the society that administers the death penalty. The Eighth Amendment protects "the dignity of society itself from ... barbarity." *Ford v. Wainwright*, 477 U.S. 399, 410 (1986). We refuse to punish with cruelty to protect ourselves against

being party to cruelty. We do so even when the temptation is powerful because the crime we are punishing was itself barbaric and cruel, as respondents will no doubt detail in their opposition. The wisdom of the Eighth Amendment is that it recognizes the temptation to be indifferent to the needless suffering of those society condemns, and demands we resist it. A society that tolerates stripping any man of his irreducible dignity, even one who merits the ultimate punishment, takes a fateful step. This Court is uniquely positioned to defend this sacred value. And it should do so in this case.

I. FACTUAL BACKGROUND

In 1998, Bucklew was convicted of first degree murder, kidnapping, burglary, forcible rape, and armed criminal action. He was sentenced to death. He does not challenge the validity of his conviction or death sentence.

A. Bucklew's Rare Medical Condition

Bucklew suffers from an exceedingly rare medical condition—cavernous hemangioma—that causes inoperable, blood-filled tumors to grow in his throat and around his face, head, and neck. Pet. App. 6a. Cavernous hemangiomas occur in only .2% of the general population, and cavernous hemangiomas in the oral cavity (affecting the lips, tongue, and palate) are prevalent in less than 1% of those who have cavernous hemangioma (only .002% of the general population). Minhua Wang, MD et al., *Cavernous Hemangioma of the Uvula: Report a Rare Case with Literature Review*, 8 N. Am. J. of Med. & Sci. 56 (2015). A case like Bucklew's, involving the uvula, is "extremely rare." *Id.* at 56.

Bucklew's tumors are extremely sensitive and susceptible to rupture. Pet. App. 6a. Merely touching

his airway can cause the delicate tissue of his airway and uvula to leak blood. Pet. App. 111a ¶ V.A.1–4, 113a ¶ V.B.8. Bucklew's condition is progressive; his tumors continue to grow, and his risk of experiencing a catastrophic hemorrhage increases. *Id.* at 113a–114a ¶ V.B.10; APP0324 at 48:6–24; APP0328.[1] In May 2014, Bucklew's medical expert, Dr. Zivot, examined him and determined that his condition had significantly progressed to the extent that his tumors posed an imminent risk of life-threatening hemorrhage. *See* APP0186–87.

Bucklew's "grossly enlarged uvula" partially obstructs his airway, making it difficult for him to breathe and causing him to choke and bleed. Pet. App. 112a ¶ V.B.1–3. On the Mallampati classification, a scale used to describe how difficult it is to secure a patient's airway in a medical setting, Bucklew's airway rates a "Class IV," meaning that his airway is "very difficult." Indeed, when Bucklew was put under general anesthesia during previous surgeries, he underwent a tracheotomy to ensure that his airway would remain secure during the procedures. *Id.* at 108a ¶ III.B, 110a ¶ IV.B–C. Bucklew's difficulty breathing is exacerbated when he lies supine, and, to prevent suffocation, he must consciously monitor and mechanically adjust his breathing to shift his uvula and permit airflow. Indeed, Bucklew sleeps on his side and upright to avoid choking and hemorrhaging, and yet still experiences frequent hemorrhages severe enough that he typically needs to clean blood off his face in the morning. *Id.* at 112a ¶ V.B.1–2.

Bucklew also has compromised peripheral veins in his hands and arms, which make his veins difficult to

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[1] APP citations are from the Appendix to Brief, *Bucklew v. Lombardi*, No. 14-3052 (8th Cir. filed Dec. 1, 2017).

visualize. Pet. App. 6a. Accordingly, it would likely take multiple attempts to set an intravenous (IV) line, and setting an IV in Bucklew's arms likely will not be possible at all. *Id.* at 114a–115a ¶VI.E; *see also* APP0346 at 77:3–21.

B. Missouri's Execution Procedure

Missouri law authorizes execution by both lethal gas and lethal injection. Mo. Stat. Ann. § 546.720.1. Missouri has a written execution procedure for lethal injection only. Nonetheless, respondents have conceded that lethal gas is a feasible and readily implemented alternative to lethal injection in Missouri. Pet. App. 13a.

The medical technicians responsible for the execution, who have been designated "M2" and "M3" to preserve their anonymity, have substantial discretion in the execution chamber. APP0341–42 at 43:11–44:22. Under the execution protocol, medical personnel determine the most appropriate locations for IV lines to inject the lethal drug. The protocol authorizes accessing the vein via a central line, such as the femoral vein, but only if the medical personnel involved in the execution "have appropriate training, education, and experience for that procedure." Pet. App. 145a.

Not all state medical personnel, and indeed not all anesthesiologists, are qualified or skilled at performing a central line procedure. APP0347 at 81:22–24; APP0362 at 237:11–19. In the past, after failing to gain peripheral vein access, the medical members of the execution team have employed an outdated procedure known as a "cut-down" in the leg. APP0311–12 at 55:12–56:17. (A cut-down involves slicing into the leg to visualize the vein; it is extremely painful. *See* APP0350 at 92:23–93:13.) Both Dr. Zivot, Buck-

lew's medical expert, and Dr. Antognini, respondents' medical expert, agree that a "cut-down" is not the current preferred method of establishing central line access. APP0352 at 98:8–23; APP0374 at 71:12–16.

After the medical team gains venous access, a non-medical member of the execution team will inject the lethal drug, during which time Bucklew will lose the ability to consciously manage his airway. Pet. App. 145a–146a; *id.* at 115a–116a ¶ VI.I–J.

C. The Known Risks Bucklew Faces From Lethal Injection In Missouri

Bucklew's execution will not go smoothly. He faces identifiable severe risks from the procedure both *before* and *after* the medical team gains venous access and the non-medical team begins to administer the lethal drug.

As noted above, attempts to access Bucklew's peripheral veins will very likely fail. Pet. App. 114a–115a ¶ VI.E; *see also* APP0346 at 77:3–21. But it is very likely that medical personnel will try, and repeatedly so. Pet. App. 114a–115a ¶ VI.E; APP0352 at 99:7–20. The discomfort of repeated failed efforts to gain venous access will increase Bucklew's stress, raising the pace of his breathing and blood pressure, increasing the risk that his sensitive tumors will rupture. Pet. App. 115a ¶ VI.G.

Eventually, the medical team will stop trying to gain peripheral access, and will turn to a central line, likely the femoral vein. To access the femoral vein, the record indicates that M3 will perform a cut-down procedure; that is what M3 has done in the past when attempts at peripheral access failed. APP309 at 28:11-22; APP311-12 at 55:20-56:3. During a cut-down, Bucklew will have to lie flat, at least while the medical team attempts to access his femoral vein,

and possibly throughout the remainder of the execution. *Id.* at 29a; *id.* at 21a & n.5. He will gag on his tumor, causing him to struggle and convulse in an effort to breathe. *Id.* at 115a ¶ VI.H, 116a ¶ VI.L. His convulsions will increase the risks associated with the attempt to gain access through the femoral vein. Among the risks of attempting femoral vein access is piercing the femoral artery. APP0350 at 90:3–92:22. That risk was recently made especially vivid during the failed execution of Doyle Lee Hamm in Alabama on February 22, 2018. Even though Alabama certified that it would use personnel qualified to access the femoral vein, the medical team punctured Hamm's artery. Pet. App. 98a. That execution had to be abandoned. If, as is likely, Bucklew is violently struggling to breathe while the team attempts femoral access, his risk of a similar failure increases.

The painful cut-down procedure and struggles to breathe will further increase the stress of the execution and further increase the likelihood of Bucklew rupturing his tumor. There is a significant likelihood that Bucklew will be choking on his tumor and gagging on his own blood for the (unknown) duration of the cut-down procedure, before the injection of the lethal drug even begins. Pet. App. 115a ¶ VI.G; APP0352 at 100:1–12.

After the lethal drug begins to flow, Bucklew will soon lose the ability to manage his airway. This is true whether he remains laying flat or whether he is upright or anything in between. Pet. App. 115a–116a ¶ VI.I. He will begin to experience a sense of suffocation and the extreme pain associated with suffocation. *Id.* at 28a–29a. In the unlikely event he has not already begun choking on his own blood as a result of struggling while lying flat throughout the cut-down procedure, the violence of his choking as he slips into

unconsciousness will likely cause his tumors to rupture and lead him to aspirate his own blood. *Id.* at 116a ¶ VI.M).

The parties disagree over how long Bucklew will be unable to manage his airway while remaining aware of the sense of suffocation. Bucklew's expert opines that Bucklew could be in this state for between 52 and 240 seconds, while respondents' expert opines that he would be conscious of suffocation for 20 to 30 seconds. Pet. App. 29a. These estimates are on top of any period of time Bucklew is suffocating prior to the administration of the lethal drug.

D. The Medical Team

Any judgments concerning how to handle an inability to gain venous access, an inmate choking, gagging, or hemorrhaging blood, or any of the other predictable complications arising from Bucklew's condition are left to the sole discretion of the medical members of the execution team. APP0339–40 at 36:11–37:9; APP0299–300 at 93:11–96:9. Nothing in the record suggests they will be anticipating what Bucklew will likely experience.

The medical personnel who perform the execution will not be provided any information concerning Bucklew's medical condition beyond a single-page document summarizing his medical history. In 2014, as Missouri prepared to execute Bucklew, a one-page form summarizing Bucklew's medical issues was prepared. Pet. App. 144a. As relevant here, it reported his cavernous hemangioma, but only with respect to his jaw and upper lip. It said *nothing* about his compromised veins, and *nothing* about the tumor in his throat that will inhibit his breathing during the execution and will very likely rupture and cause him to choke on his blood. Indeed, whoever prepared the

form shockingly reported "No" in response to the question "Does the offender have Asthma, bronchitis, or *any other breathing problem*?" *Id.* (emphasis added). The medical team will not be provided with any other medical records, including the MRI images that reveal the size of the tumors in Bucklew's airway. APP0292 at 43:20–44:6.

Missouri has never executed an inmate who suffers from cavernous hemangioma, APP0448 at Resp. No. 4, and there is no reason to believe that the medical members of the execution team have ever seen a patient with cavernous hemangioma, or have ever seen one with tumors in his throat. Even if they are alerted to the *fact* of the disease by the medical form, there is no reason to believe they will be alert to the rare tumor in Bucklew's throat and the special suffocation risk it creates.

E. The Lethal Gas Alternative

Bucklew has proposed death by nitrogen hypoxia as an alternative method of execution. APP0085–87. Lethal gas requires no venous access at all. So, all the risks posed by the difficulties of gaining venous access, including the painful cut-down procedure, would vanish. Likewise, lethal gas can be administered while Bucklew is seated upright, so all the risks of struggling to breathe and choking on the blood flowing from his throat tumor while lying flat during the cut-down procedure would also vanish. APP0547; APP0898–99.

Dr. Antognini opined that, if administered correctly, lethal gas would lead to a quick death. APP0362 at 234:12-21. Specifically, he testified that inhalation of nitrogen gas "would quickly achieve hypoxia and cause an inmate to become quickly unconscious" within about 20 to 30 seconds of breathing pure ni-

trogen. APP0362 at 234:12–21. In addition, there is reason to believe that breathing 100% nitrogen does not produce a sense of suffocation. The sense of suffocation is caused by a buildup of carbon dioxide in the blood when a person is unable to expel air. APP0899. If one breathes in pure nitrogen while expelling air, death is caused by an absence of oxygen unaccompanied by a sense of suffocation. APP0899; APP0911. Reports of high altitude pilots who lost consciousness while breathing air low in oxygen and high in nitrogen is consistent with this view. APP0547.

Dr. Zivot did not opine on whether lethal gas would result in significantly less suffering than Missouri's lethal injection protocol because he is ethically barred from proposing a method of execution at all. Pet. App. 108a ¶ II.B. So, no evidence in the record disputes respondents' expert's view that death by lethal gas would be substantially quicker and less painful than Bucklew's expert's view of the likely suffering that lethal injection will cause Bucklew.

II. PROCEEDINGS BELOW

A. Procedural History And Discovery

In a Fourth Amended Complaint filed on October 13, 2015, Bucklew challenged the constitutionality of Missouri's execution protocol as applied to him. Among other things, he alleged that Missouri's lethal injection protocol "presents a substantial risk of causing excruciating or tortuous pain and inflicting needless suffering" and therefore violates the Eighth Amendment's prohibition on cruel and unusual punishment.[2] APP0136-37 ¶¶ 148, 151. He further al-

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[2] Bucklew was also party to an earlier case styled *Zink v. Lombardi*, No. 12-04209-BP (W.D. Mo. filed Aug. 1, 2012), in

leged that his "blood-filled tumors are prone to rupture under stress or any rise in blood pressure. When this occurs, Mr. Bucklew bleeds through his facial orifices and in his throat, further obstructing his airway and causing him to choke." APP0086. Bucklew alleged that "the risks arising from Mr. Bucklew's airway are even greater if he is lying flat." APP0119 ¶ 102. Bucklew's initial complaint was filed on May 9, 2014, and on May 14, 2014, Bucklew moved for a stay of his execution, then scheduled for May 21, 2014, to provide adequate time to litigate his claims. The district court denied Bucklew's motion for a stay, and dismissed his complaint, *sua sponte*. *Bucklew v. Lombardi*, No. 14-1800-CV-W-BP, 2014 WL 2736014 (W.D. Mo. May 9, 2014).

With only two days remaining until his scheduled execution, Bucklew immediately appealed the dismissal of his complaint. An Eighth Circuit panel granted a stay. *Bucklew v. Lombardi*, 565 F. App'x 562, 569–71 (8th Cir. 2014). After the Eighth Circuit, sitting *en banc*, vacated the stay on the same day, this Court entered a stay of execution pending Bucklew's appeal. *Bucklew v. Lombardi*, 134 S. Ct. 2333 (2014) (Mem.).

Roughly ten months later, the *en banc* Eighth Circuit reversed the dismissal of Bucklew's Complaint and remanded for further proceedings. Pet. App. 72a–88a. The full Eighth Circuit, split 6–4, rejected Bucklew's argument that he need not propose an alternative method of execution because he raised an as-applied challenge only. *Id.* at 75a, 84a. On remand, Bucklew amended his complaint to assert that lethal gas is a "feasible and available alternative

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which he and other inmates raised a facial challenge to Missouri's lethal injection execution protocol.

method that will significantly reduce the risk of severe pain." APP0137 ¶ 150.

Discovery began and Bucklew sought, among other things, information about the skills and training of M2 and M3 to handle the risks that his rare condition would likely present. APP0224–26. Bucklew indicated that identifying information in any documents produced concerning M2 and M3 could be redacted. APP0224–25. The district court refused to allow Bucklew any access to the medical team and any information regarding their skills and training. Pet. App. 44a–52a.

After additional discovery revealed the extent of discretionary authority granted to M2 and M3 during an execution, Bucklew filed a Motion to Compel outlining the need for discovery concerning the training and qualifications of M2 and M3. The district court again denied Bucklew access to this discovery. Pet. App. 57a, 71a.

M2 and M3 have been deposed in prior capital litigation, specifically in 2010 in *Ringo v. Lombardi*, No. 09-4095-BP (W.D. Mo. filed May 17, 2009), and in 2013 and 2014 in *Zink v. Lombardi*, No. 12-4209-BP (W.D. Mo. filed Aug. 1, 2012). Bucklew's appointed counsel, Ms. Pilate, represented Bucklew in those proceedings (which raised facial challenges, not as-applied challenges to Missouri's execution protocol), and she believes that the contents of those depositions are directly relevant to disputed factual issues in this case. APP0278. The district court, however, refused to permit Ms. Pilate to share the deposition transcripts with Sidley Austin or to use the transcripts in connection with this case. APP0285–86.

B. The Lower Court Decisions

The district court granted respondents summary judgment on June 15, 2017. The district court assumed that the record demonstrated "a substantial risk that [Bucklew] will experience choking and an inability to breathe for up to four minutes." Pet. App. 34a. The court also noted that "Defendants do not argue that [Bucklew's proposed alternative] method of execution is not feasible or readily implemented." *Id.* However, the district court concluded that the record did not present a triable dispute concerning whether execution by nitrogen gas would significantly reduce Bucklew's risk of needless suffering, as compared to Missouri's lethal injection protocol. *Id.* at 35a. The district court also denied a motion to reconsider. *Id.* at 39a–43a.

On November 21, 2017, while Bucklew's appeal was pending and before the parties had fully briefed the issues, at the state's urging, the Missouri Supreme Court reset Bucklew's execution date to March 20, 2018. Shortly thereafter, the Eighth Circuit set the appeal for argument on February 2, 2018.

On March 6, 2018, a divided panel of the Eighth Circuit affirmed the district court. The panel majority concluded that Bucklew provided no evidence proving that lethal gas would substantially reduce his risk of severe pain. It acknowledged evidence from Bucklew's expert that lethal injection would cause him to experience a sense of suffocation for several minutes. Pet. App. 14a. It also acknowledged that it was undisputed that lethal gas would cause him to experience a sense of suffocation for, at most, 20–30 seconds. *Id.* And it nowhere disputed that the difference would be significant enough to warrant relief. Instead, the panel declared that Bucklew's claim failed because the evidence showing a difference be-

tween the two methods had not come from any one witness. *Id.* That is, the panel interpreted this Court's requirement of "comparative" evidence to mean that an inmate must point to a single witness who does the comparison. *Id.*

Judge Colloton dissented. In surveying the evidence and interpreting it in the light most favorable to Bucklew, Judge Colloton concluded: "If the fact-finder accepted Dr. Zivot's testimony as to the effect of pentobarbital, and Dr. Antognini's uncontroverted testimony as to the effect of nitrogen gas, then Bucklew's proposed alternative method would significantly reduce the substantial risk of severe pain ...." Pet. App. 22a. Judge Colloton observed that the general rule allows the trier of fact to accept all or just a part of any witness' testimony, and that on summary judgment one party can rely on a portion of the opposing party's expert's testimony to create a genuine issue of material fact. *Id.* Accordingly, Judge Colloton would have remanded the case to the district court to hold a trial and make factual findings.

The panel majority also affirmed the district court's denial of any discovery into the qualifications of the medical personnel who will participate in Bucklew's execution. The panel majority, interpreting Bucklew's argument as resting on the "premise that M2 and M3 may not be qualified for the positions for which they have been hired," refused to "assume that Missouri employs personnel who are incompetent or unqualified" or to permit discovery into "[t]he potentiality that something may go wrong in an execution." Pet. App. 17a. Instead, the panel majority insisted that the court's analysis must be based on the assumption "that those responsible for carrying out the sentence are competent and qualified to do so, and that the procedure will go as intended." *Id.*

Three days after the decision, Bucklew petitioned for a panel rehearing or rehearing *en banc*, and moved for an emergency stay. In opposing the stay request, Respondents submitted a new factual affidavit from Alana Boyles, which stated that, during Bucklew's execution, "the Department will adjust the gurney so that Mr. Bucklew is not lying fully supine at the time the Department administers the lethal chemicals." Pet. App. 89a. The affidavit was prepared *after* the Eighth Circuit panel had already issued its decision, and was thus submitted without any opportunity for Bucklew to investigate Ms. Boyle's role in the execution protocol or her authority to make decisions concerning how that protocol will be applied to Bucklew. The affidavit made no representations about how Bucklew would be positioned *prior* to the time the Department administers the lethal chemicals, including during a cut-down procedure.

On March 15, 2018, the Eighth Circuit declined to rehear Mr. Bucklew's appeal. Pet. App. 1a.

REASONS FOR GRANTING THE PETITION

This case presents an opportunity to resolve three important questions arising out of the Eighth Circuit's misinterpretation of this Court's decisions in method-of-execution cases. First, this Court can confirm that courts evaluating an as-applied challenge to a state's method of execution should not assume that an execution will go as intended for an inmate with a rare and severe medical condition, and should allow discovery into the training and skills of relevant medical personnel. Second, this Court can reaffirm that the traditional summary judgment standard applies in challenges to methods of execution, and that an inmate need not present a single witness to provide

comparative evidence distinguishing the state's method of execution from the inmate's proposed alternative. Third, this Court can declare that inmates need not propose an alternative execution procedure when raising an *as-applied* challenge to a state's method of execution. These questions are critical to the fairness of procedures for inmates facing execution protocols that, as applied to them, pose known and severe risks of needless suffering.

I. THIS CASE PRESENTS URGENT QUESTIONS REGARDING LITIGATION OF AS-APPLIED CHALLENGES TO A METHOD OF EXECUTION.

A. Whether Courts Evaluating An As-Applied Method-Of-Execution Claim Should Assume That Medical Personnel Are Competent To Handle An Inmate's Rare And Severe Medical Condition, And That The Execution Will Go As Intended, Warrants Review.

The Eighth Circuit affirmed the denial of discovery into the training and qualifications of the medical personnel who will make critical decisions affecting the length and severity of Bucklew's suffering during the execution. It did so because it concluded that the training and qualifications of the medical team are irrelevant. It ruled that a court evaluating an inmate's as-applied challenge under *Baze* and *Glossip* "must ... assum[e] that those responsible for carrying out the sentence are competent and qualified to do so, and that the procedure will go as intended." Pet. App. 17a. A challenge to a method of execution based on the inmate's medical condition necessarily asserts that the procedure will *not* go as intended. If such claims are cognizable at all, the Eighth Circuit's rule cannot stand.

This Court has already indicated that such claims are cognizable. The plurality opinion in *Baze* acknowledged the possibility that some executions might entail an "objectively intolerable risk of harm that officials may not ignore." *Baze*, 553 U.S. at 50 (plurality opinion) (internal quotation marks omitted). Nothing in *Glossip* undermines that view. And for good reason. The rule follows logically from this Court's longstanding view that "deliberate indifference" to an inmate's medical condition can rise to the level of cruel and unusual punishment within the meaning of the Eighth Amendment. *Gamble*, 429 U.S. at 104. Here, medical personnel charged with administering Missouri's execution protocol on an inmate with a rare and severe medical condition will be ignorant of material details about that condition, yet empowered to make critical decisions during the procedure that will increase the inmate's suffering. Respondents refuse even to provide access to those medical professionals for discovery. All of this evinces deliberate indifference to Bucklew's condition and the risks that lethal injection poses to him.

Importantly, Bucklew does not claim, as the Eighth Circuit suggested, that "M2 and M3 may not be qualified for the positions for which they have been hired." Pet. App. 17a. Bucklew presently has no reason to believe they lack the qualifications to do what the execution protocol demands: "prepare the lethal chemicals," "determine the most appropriate locations for intravenous (IV) lines," "monitor the prisoner during the execution," among other things. *Id.* at 145a–146a ¶¶ B, C.1, D.2. But the execution protocol also empowers the medical team to attempt to access the femoral vein "provided they have appropriate training, education, and experience for that procedure." *Id.* at 145a ¶ C.1. That is, the execution protocol does

not assume the training and experience of the medical team members to handle one of the procedures that the experts agree will likely be required here: obtaining access to the femoral vein. *Assuming* that medical team members will do so and all will go "as intended," as the Eighth Circuit has done here, is not only contrary to law, but is contrary to the protocol itself.

The execution protocol at issue here is nothing like the protocols this Court had before it in *Baze* and *Glossip*. Both of those protocols included "several important safeguards," *Baze*, 553 U.S. at 55 (plurality opinion), to protect against the possibility of error in administering the drugs. Indeed, Oklahoma's standards considered in *Glossip*, adopted after the horrific execution of Clayton Lockett, included "detailed provisions with respect to the training and preparation of the execution team." 135 S. Ct. at 2735. Not only does Missouri's protocol lack any details regarding the training and preparation of the execution team, but Bucklew was wrongfully denied the chance to fill that critical gap through discovery.

That denial is all the more egregious in light of the testimony that makes clear how much discretionary authority medical team members have during the execution. Anne Precythe, who as Director of Corrections is nominally in charge, repeatedly stated during her deposition that she knows nothing about Bucklew's medical condition and would defer to M2 and M3 regarding how to handle any issues that arise during the execution. APP0338–40 at 35:12–37:9; APP0341–42 at 43:11–44:22. This includes not only the decision whether to attempt venous access through a central line like the femoral vein, but also how many attempts will be made on peripheral veins, and what procedure will be used to attempt femoral

vein access. It also includes how to position Bucklew during attempts to gain venous access and beyond. *See* Pet. App. 20a–21a & n.5.

Under Missouri's vague procedures, and Precythe's deference to medical team members, the risk of trying and failing to gain venous access through a peripheral vein, and then likely attempting access through the outdated cut-down procedure that medical personnel previously performed, is not the prospect of a mere "isolated mishap," as the Eighth Circuit supposed. Pet. App. 17a (quoting *Baze*, 553 U.S. at 50). This risk is all but certain. It will lengthen the execution procedure. It will increase the stress of the procedure on Bucklew, which increases the risk that his tumors will rupture and he will begin to bleed from them, likely gagging on his own blood even *before* the lethal drug can be administered. *Id.* at 114a–115a ¶ VI.E–G, 109a ¶ III.F. Convulsing uncontrollably during a cut-down procedure surely increases the risk that the femoral artery will be punctured, or that the IV line will be positioned so that the lethal drug leaks into neighboring tissue, causing intense pain.

Even though we know these risks are substantial, we have no reason to believe medical team members will be alert to them. There is no reason to believe M2 or M3 have ever seen a patient with cavernous hemangioma, or have ever seen one with tumors in his throat. There is reason to believe that neither M2 nor M3 will be alerted to Bucklew's compromised veins, the tumor in Bucklew's throat, or the nature and extent of the risk of suffocation Bucklew faces. The single page form previously prepared in anticipation of an earlier execution date for Bucklew failed to report any of these known problems. Pet. App. 144a.

Respondents tacitly conceded that the record inadequately supports their assurances that all will go smoothly by submitting, at the rehearing stage in the Eighth Circuit, a new affidavit of a new witness purporting to provide minimal (and inadequate) assurance that Bucklew will not be "fully supine at the time the Department administers the lethal chemicals." Pet. App. 89a. The affidavit makes no representation about Bucklew's position during the painful cut-down procedure he will endure. There remains every reason to believe Bucklew will be forced to lie "fully supine" during that procedure, which necessarily occurs before the lethal chemicals are administered. Bucklew had no opportunity to investigate Ms. Boyles' role in the execution protocol or her authority to make decisions concerning how that protocol will be applied to Bucklew. And the respondents' gesture reflects their mistaken insistence that Bucklew's risk of suffocating is present only when "fully supine." That is wrong. *Id.* at 115a–116a ¶ VI.I–J); *id.* at 20a. In the end, the affidavit only underscores respondents' deliberate indifference to the full range of risks Bucklew faces. It illustrates why "[a]n adversarial process should ... test[] the risk of 'serious illness and needless suffering.'" *Hamm*, 138 S. Ct. at 828–29 (Ginsburg, J., dissenting).

That adversarial process can include safeguards to protect the anonymity of execution team members. Bucklew has never asserted otherwise. *See, e.g.*, APP0224–25 at IV.I.1.3. Indeed, such safeguards have been used in the past when similar discovery was *allowed*. The fact that the court barred Ms. Pilate, who has seen that discovery and believes it is relevant here, from using it in this case, dramatically demonstrates the fundamental unfairness of the discovery ruling. This Court's review is warranted.

B. Whether The Evidence Comparing The Risks Of Proposed Methods Of Execution Must Come From A Single Witness Warrants Review.

The Eighth Circuit has ruled that an inmate raising an as-applied challenge to a method of execution must plead and prove that a feasible and readily available alternative method of execution would substantially reduce his risk of needless suffering. Pet. App. 75a, 84a. For the reasons discussed below, Bucklew maintains that ruling was error. But even assuming that is correct, the Eighth Circuit has layered an additional evidentiary burden on inmates challenging a state's proposed method of execution. According to the panel majority, and over the dissent of Judge Colloton, the Eighth Circuit now requires inmates to present a single witness who compares the risks posed by the two methods of execution and who concludes that the inmate's proposal substantially reduces the risks posed by the state's method. *Id.* at 13a–14a. This novel evidentiary standard, at odds with settled summary judgment law, warrants review.

What the parties' experts concluded is clear regarding the risks Bucklew faces *after* the lethal drug is administered. Bucklew's expert (Dr. Zivot) opines that Bucklew will experience a sense of suffocation for several minutes if lethal injection is used. Respondents' expert (Dr. Antognini) thinks Bucklew will experience a sense of suffocation for 20-30 seconds if lethal injection is used. Dr. Zivot did not opine on how long Bucklew would experience pain if executed by lethal gas. Dr. Antognini opined that lethal gas would leave Bucklew insensate to pain within 20-30 seconds.

The Eighth Circuit panel majority correctly stated Bucklew's argument: "the district court should have compared Dr. Zivot's opinion [about lethal injection] with Dr. Antognini's testimony [about lethal gas.]" Pet. App. 14a. Judge Colloton, in dissent, did just that: "If the factfinder accepted Dr. Zivot's testimony as to the effect of pentobarbital, and Dr. Antognini's uncontroverted testimony as to effect of nitrogen gas, then Bucklew's proposed alternative method would significantly reduce the substantial risk of severe pain ...." *Id.* at 22a. The panel majority does not deny that the difference between experiencing suffocation for 20-30 *seconds*, and experiencing suffocation for several *minutes*, is significant and would warrant relief. Instead, it refused to compare Dr. Zivot's opinion about lethal injection with Dr. Antognini's opinion about lethal gas. Put simply, the panel majority rejected Bucklew's argument because "his expert" did not compare the two methods himself. *Id.* at 13a–14a.[3]

This was legal error. *Glossip* requires a comparison between the state's method and a petitioner's alternative method. But it nowhere requires that a single witness compare the two. As Judge Colloton explained, a witness's testimony may be credited in whole or in part, and a plaintiff may rely on the defendant's evidence, including the defendant's expert witness, if that evidence is helpful. Pet. App. 22a (cit-

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[3] The panel majority also erroneously stated Bucklew's concern about suffocation "rests on" whether he will be forced to lie supine. Pet. App. 15a. In fact, Dr. Zivot notes that Bucklew's choking is worse when lying flat. *Id.* at 112a ¶ V.B.1–2). Dr. Zivot also clearly stated that once Bucklew loses full consciousness, he will be unable to manage his airway and will choke. *Id.* at 115a–116a ¶ VI.I.

ing cases). Petitioner is aware of no federal court of appeals that has ruled to the contrary.[4]

The panel majority provided no citation for its novel rule. The previously unquestioned rule of law relied upon by Judge Colloton follows logically from the standard for summary judgment: only when "the record taken as a whole" creates no genuine issue of material fact should a court enter summary judgment. *Ricci*, 557 U.S. at 586; *Matsushita*, 475 U.S. at 587. Evidence is evidence, whether proffered by the party seeking or opposing summary judgment. At summary judgment, a party may rely upon an opponent's expert to support or defeat the motion. *DG&G, Inc. v. FlexSol Packaging Corp. of Pompano Beach*, 576 F.3d 820, 826-27 (8th Cir. 2009). There is and should be no special burden placed on inmates under sentence of death challenging a method of execution in light of a rare medical condition. The panel majority misread *Glossip* and improperly imposed a proffer-all-the-comparative-evidence-yourself rule on Bucklew.

Indeed, it is especially inappropriate to impose this special burden in an as-applied method of execution

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[4] Every Circuit agrees with Judge Colloton. *United States v. Gonzalez-Velez*, 587 F.3d 494, 504 (1st Cir. 2009); *United States v. Norman*, 776 F.3d 67, 78 (2d Cir. 2015); *United States v. Boone*, 279 F.3d 163, 189 (3d Cir. 2002); *Trademark Props., Inc. v. A&E TV Networks*, 422 F. App'x 199, 212 (4th Cir. 2011); *United States v. Merida*, 765 F.2d 1205, 1220 (5th Cir. 1985); *Dixon v. Penn Cent. Co.*, 481 F.2d 833, 837 (6th Cir. 1973); *United States v. Rollins*, 544 F.3d 820, 836 (7th Cir. 2008); *United States v. Candie*, 974 F.2d 61, 65 (8th Cir. 1992); *United States v. Clevenger*, 733 F.2d 1356, 1359 (9th Cir. 1984); *United States v. Ransom*, 691 F. App'x 504, 506 (10th Cir. 2017); *United States v. Prince*, 883 F.2d 953, 959 n.3 (11th Cir. 1989); *United States v. Crowder*, 543 F.2d 312, 326 (D.C. Cir. 1976) (en banc); *Anderson v. Dep't of Transp., FAA.*, 827 F.2d 1564, 1570 (Fed. Cir. 1987) (per curiam).

case. Dr. Zivot explained why he could not opine on a method of execution that would result in significantly less suffering than the lethal injection protocol proposed by the State: he is ethically barred from proposing a method of execution at all. Pet. App. 108a ¶ II.B. The law should not require an inmate to find an expert who is willing to violate his or her oath by custom-designing a method of execution that will substantially reduce the inmate's idiosyncratic reasons for excessive suffering.

This Court should grant this petition and restore the generally applicable rules for evaluating evidence at summary judgment to inmates bringing an as-applied challenge to their methods of execution.

C. Whether An Inmate Raising An As-Applied Challenge To A Method Of Execution Must Prove An Available Alternative Method That Will Substantially Reduce His Risk Of Suffering Also Warrants Review.

The Eighth Circuit requires an inmate raising an as-applied, method-of-execution challenge to propose a "feasible, readily implemented alternative procedure that will *significantly* reduce a substantial risk of severe pain and that the State refuses to adopt." Pet. App. 84a. Its 6-4 *en banc* ruling on this issue mis-applied a rule announced in cases raising facial challenges to the critically different context of an as-applied challenge. The extension of the rule to as-applied challenges, also adopted by the Eleventh Circuit, the Florida Supreme Court, and suggested by the Sixth Circuit, is unwarranted. The reasons justifying the alternative method requirement are linked with the character of facial challenges.

Both *Baze* and *Glossip* start from the premise that because the Constitution permits capital punishment, it must also permit a method of carrying out the death sentence. *Baze*, 553 U.S. at 48–49 (plurality opinion); *Glossip*, 135 S. Ct. at 2739. The implications for that premise are broader when the Court is considering a facial challenge than when it is considering an as-applied challenge.

A facial challenge asks the Court to declare a method of execution unconstitutional for use against anyone. Such a challenge runs the risk of being a disguised effort to render the death penalty itself unconstitutional. *See Glossip*, 135 S. Ct. at 2739. But that risk is not present at all when the inmate raises an as-applied challenge. Such a claim implicates the lawfulness of the state's method for no other inmate. Bucklew's claim is rooted in his idiosyncratic medical condition and the risks posed specifically to him. He does not seek a judgment that would require Missouri to alter its execution protocol as to any other inmate. Nothing about his claim even implicitly questions the lawfulness of capital punishment.

And nothing about Bucklew's claim seeks to "transform courts into boards of inquiry charged with determining 'best practices' for executions." *Baze*, 553 U.S. at 51 (plurality opinion). Because only Bucklew's execution is at stake, his claim does not ask the courts to displace state officials from their task as designers of a state's protocol for carrying out capital punishment. State legislatures would continue to evaluate the best scientific evidence available to approve the most humane methods of execution. *Id.* Courts would remain focused on a task for which they are well suited: evaluating whether a general state rule (the state's execution protocol) applied to particular facts (the medical condition of the inmate) satis-

fies the Constitution's legal standard (the Eighth Amendment's prohibition of cruelty).

Practical considerations also weigh in favor of relieving inmates with rare, complicating medical conditions from having to design their own execution protocol. State officials naturally have a firmer grasp of the modifications to a protocol that the state can accommodate. State officials will also have greater experience with the complications that can arise during executions, and thus will have better knowledge of what practices are likely to provide relief, at least in circumstances that can recur. And inmates will often be frustrated in their efforts to obtain expert guidance in custom-designing a method of execution that accounts for their particular medical issues. Most professionals with medical training are barred by ethical standards from "participating in" an execution, which includes a bar on designing a method of execution that is "better" than the one proposed by the state. *See, e.g.*, *AMA Code of Medical Ethics*, tit. 9.7.3 "Capital Punishment" (2016), https://www.ama-assn.org/sites/default/files/media-browser/code-of-medical-ethics-chapter-9.pdf.

This Court has already ruled that certain individuals, based on their mental health, are categorically ineligible for the death penalty. *Ford*, 477 U.S. at 410 (plurality opinion) ("The Eighth Amendment prohibits the State from inflicting the penalty of death upon a prisoner who is insane."); *Moore v. Texas*, 137 S. Ct. 1039, 1048 (2017) (holding that individuals with certain mental deficiencies cannot be constitutionally executed); *Hall v. Florida*, 134 S. Ct. 1986, 1992 (2014) ("[P]ersons with intellectual disability may not be executed."). It should not be surprising, then, that the Eighth Amendment prohibits the execution of *some* individuals by a *particular*

method based on their physical condition. That is all Bucklew asserts here. Bucklew's physical condition should not condemn him to state indifference to his suffering, even if Bucklew is unable to design an alternative that convincingly shows the promise of substantially reduced suffering. Rather, his proof that his idiosyncratic condition means the state will impose unconstitutional suffering on him should lead to a court order preventing the state from doing so. The law should not "bar a death-row inmate from vindicating a right guaranteed by the Eighth Amendment .... even if [he] can prove that the State plans to kill him in an intolerably cruel manner." *Arthur*, 137 S. Ct. at 729 (Mem.) (Sotomayor, J., dissenting). Such a judgment would leave Missouri free to design a lethal gas protocol that meets Eighth Amendment standards.

II. THIS CASE IS A STRONG VEHICLE FOR ADDRESSING THESE ISSUES.

This case is on direct appeal from final judgment. The Eighth Circuit's decision adopts novel rules of law that frustrate method-of-execution claims. The issues are cleanly presented.

Throughout this litigation, respondents have persistently suggested otherwise. They have asserted that Bucklew failed to plead his claim, and that his claim is barred by *res judicata* and the statute of limitations because he could have and should have brought his claim earlier, in a proceeding that raised a facial challenge. No judge has agreed with respondents. Judge Colloton thoroughly and accurately rejected their arguments. Bucklew need not repeat t ose reasons in full here. But, in brief: (1) Bucklew specifically pleaded that lethal injection would cause him to experience a prolonged sense of suffocation, and (2) Bucklew was repeatedly *denied* the resources

to investigate the severity of the risks he faced from lethal injection in light of his condition, and did not learn the facts necessary to assert his claim until it was too late to include his as-applied challenge in the case raising a facial challenge to lethal injection.

CONCLUSION

For the foregoing reasons, the Court should grant the petition for a writ of certiorari.

Respectfully submitted,

/s/ Robert N. Hochman

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March 15, 2018

No. 17-

IN THE

Supreme Court of the United States

RUSSELL BUCKLEW,

Petitioner,

v.

ANNE PRECYTHE, *et al.*,

Respondents.

On Petition for a Writ of Certiorari to the United States Court of Appeals for the Eighth Circuit

PETITION APPENDIX

EXECUTION SCHEDULED FOR MARCH 20, 2018

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UNITED STATES COURT OF APPEALS
FOR THE EIGHTH CIRCUIT

No: 17-3052

Russell Bucklew

Appellant

v.

Anne L. Precythe, Director of the Department of Corrections, et al.

Appellees

Appeal from U.S. District Court for the Western District of Missouri - Kansas City
(4:14-cv-8000-BP)

ORDER

Before SMITH, Chief Judge, WOLLMAN, LOKEN, COLLOTON, GRUENDER, SHEPHERD, KELLY, ERICKSON, GRASZ and STRAS, Circuit Judges.

Appellant Bucklew's petition for rehearing by panel is denied. Judge Colloton would grant the petition for rehearing by panel.

Appellant Bucklew's petition for rehearing en banc has been considered by the court and the petition is denied. Chief Judge Smith and Judge Kelly would grant the petition. Judge Colloton and Judge Gruender would grant rehearing en banc on Point I of the petition for rehearing en banc.

Judge Duane Benton took no part in the consideration or decision of the petition for rehearing en banc.

KELLY, Circuit Judge, dissenting from the denial of the petition for rehearing en banc.

I would grant Russell Bucklew's petition for rehearing en banc—and reverse the district court's grant of summary judgment—for the reasons stated in the dissent from the panel opinion

in this case. See Bucklew v. Precythe, ___ F.3d ___, 2018 WL 1163360, at *7 (8th Cir. 2018) (Colloton, J., dissenting). I would also grant Bucklew's petition to the extent it seeks reconsideration of this court's conclusion, in Bucklew v. Lombardi, 783 F.3d 1120, 1128 (8th Cir. 2015) (en banc), that those sentenced to death must plead a "feasible, readily implemented alternative procedure" for carrying out their sentence in order to state a plausible as-applied claim under the Eighth Amendment. I continue to believe that "[f]acial and as-applied challenges to execution protocols are different," that death row inmates "need not plead a readily available alternative method of execution" to bring an as-applied challenge, and that "[a] state cannot be excused from taking into account a particular inmate's existing physical disability or health condition when assessing the propriety of its execution method." See id. at 1129 (Bye, J., concurring in the result). "While the Supreme Court has been clear on the general proposition that, so long as a state-imposed death penalty is constitutional, there must be some way for states to carry out executions, the Supreme Court has also been clear that some individuals cannot be executed." Id. at 1130 (collecting cases); see also Madison v. Alabama, 138 S. Ct. ___, 2018 WL 514241 (Feb. 26, 2018); Dunn v. Madison, 138 S. Ct. 9, 12 (2017) (Ginsburg, J., concurring). In my view, neither Glossip v. Gross, 135 S. Ct. 2726 (2015), nor any subsequent case from the United States Supreme Court dictates the result this court reached on this issue in Bucklew v. Lombardi, 783 F.3d 1120 (8th Cir. 2015) (en banc).

March 15, 2018

Order Entered at the Direction of the Court:
Clerk, U.S. Court of Appeals, Eighth Circuit.

/s/ Michael E. Gans

United States Court of Appeals
For the Eighth Circuit

No. 17-3052

Russell Bucklew

Plaintiff - Appellant

v.

Anne L. Precythe, Director of the Department of Corrections, et al.

Defendants - Appellees

Appeal from United States District Court
for the Western District of Missouri - Kansas City

Submitted: February 2, 2018
Filed: March 6, 2018

Before WOLLMAN, LOKEN, and COLLOTON, Circuit Judges.

LOKEN, Circuit Judge

The issue is whether the Eighth and Fourteenth Amendments, as applied, bar Missouri officials from employing a procedure that is authorized by Missouri statute to execute Russell Bucklew.

In March 2006, Bucklew stole a car; armed himself with pistols, handcuffs, and a roll of duct tape; and followed his former girlfriend, Stephanie Ray, to the home of

Appellate Case: 17-3052 Page: 1 Date Filed: 03/06/2018 Entry ID: 4636271

Michael Sanders, where she was living. Bucklew knocked and entered the trailer with a pistol in each hand when Sanders's son opened the door. Sanders took the children to the back room and grabbed a shotgun. Bucklew began shooting. Two bullets struck Sanders, one piercing his chest. Bucklew fired at Sanders's six-year-old son, but missed. As Sanders bled to death, Bucklew struck Ray in the face with a pistol, handcuffed Ray, dragged her to the stolen car, drove away, and raped Ray in the back seat of the car. He was apprehended by the highway patrol after a gunfight in which Bucklew and a trooper were wounded.

A Missouri state court jury convicted Bucklew of murder, kidnaping, and rape. The trial court sentenced Bucklew to death, as the jury had recommended. His conviction and sentence were affirmed on direct appeal. State v. Bucklew, 973 S.W.2d 83 (Mo. banc 1998). The trial court denied his petition for post-conviction relief, and the Supreme Court of Missouri again affirmed. Bucklew v. State, 38 S.W.3d 395 (Mo. banc 2001). We subsequently affirmed the district court's denial of Bucklew's petition for a federal writ of habeas corpus. Bucklew v. Luebbers, 436 F.3d 1010 (8th Cir. 2006). The Supreme Court of Missouri issued a writ of execution for May 21, 2014. Bucklew filed this action under 42 U.S.C. § 1983, alleging that execution by Missouri's lethal injection protocol, authorized by statute, would constitute cruel and unusual punishment in violation of the Eighth and Fourteenth Amendments as applied to him because of his unique medical condition. Bucklew appeals the district court's[1] grant of summary judgment in favor of the state defendants because Bucklew failed to present adequate evidence to establish his claim under the governing standard established by the Supreme Court in Baze v. Rees, 553 U.S. 35 (2008), and Glossip v. Gross, 135 S. Ct. 2726 (2015). Reviewing the grant of summary judgment *de novo*, we affirm.

---

[1]The Honorable Beth Phillips, United States District Judge for the Western District of Missouri.

I.

Missouri's method of execution is by injection of a lethal dose of the drug pentobarbital. Two days before his scheduled execution in 2014, the district court denied Bucklew's motion for a stay of execution and dismissed this as-applied action *sua sponte*. On appeal, a divided panel granted a stay of execution, Bucklew v. Lombardi, 565 Fed. Appx. 562 (8th Cir. 2014); the court en banc vacated the stay. Bucklew applied to the Supreme Court for a stay of execution, and the Court issued an Order granting his application "for stay pending appeal in the Eighth Circuit." This court, acting en banc, reversed the *sua sponte* dismissal of Bucklew's as-applied Eighth Amendment claim and remanded to the district court for further proceedings. Bucklew v. Lombardi, 783 F.3d 1120, 1128 (8th Cir. 2015) ("Bucklew I"). On the same day, the en banc court affirmed the district court's dismissal on the merits of a facial challenge to Missouri's lethal injection protocol filed by several inmates sentenced to death, including Bucklew. Zink v. Lombardi, 783 F.3d 1089, 1114 (8th Cir.), cert denied, 135 S. Ct. 2941 (2015).[2]

---

[2]"The doctrine of res judicata or claim preclusion bars relitigation of a § 1983 claim if the prior judgment was a final judgment on the merits rendered by a court of competent jurisdiction, and if the same cause of action and the same parties or their privies were involved." Baker v. Chisom, 501 F.3d 920, 925 (8th Cir. 2007), cert denied, 554 U.S. 902 (2008). As Bucklew was a plaintiff in Zink, any facial challenge to the current method of execution in this case is precluded. Defendants argue that Bucklew's as-applied challenge is also precluded because it could have been raised in Zink. See Brown v. St. Louis Police Dep't, 691 F.2d 393, 396 (8th Cir. 1982). Like the district court, we decline to address this complex issue. See Bucklew I, 783 F.3d at 1122 n.1; cf. Whole Woman's Health v. Hellerstedt, 136 S. Ct 2292, 2305 (2016). We likewise decline to address defendants' claim that Bucklew's as-applied challenge is barred by the applicable statute of limitations. See Boyd v. Warden, Holman Corr. Facility, 856 F.3d 853, 874-76 (11th Cir. 2017).

Our decision in Bucklew I set forth in considerable detail the allegations in Bucklew's as-applied complaint regarding his medical condition. 783 F.3d at 1124-26. Bucklew has long suffered from a congenital condition called cavernous hemangioma, which causes clumps of weak, malformed blood vessels and tumors to grow in his face, head, neck, and throat. The large, inoperable tumors fill with blood, periodically rupture, and partially obstruct his airway. In addition, the condition affects his circulatory system, and he has compromised peripheral veins in his hands and arms. In his motion for a stay of execution in Bucklew I, Bucklew argued:

> Dr. Joel Zivot, a board-certified anesthesiologist . . . concluded after reviewing Mr. Bucklew's medical records that a substantial risk existed that, because of Mr. Bucklew's vascular malformation, the lethal drug will likely not circulate as intended, creating a substantial risk of a "prolonged and extremely painful execution." Dr. Zivot also concluded that a very substantial risk existed that Mr. Bucklew would hemorrhage during the execution, potentially choking on his own blood -- a risk greatly heightened by Mr. Bucklew's partially obstructed airway.
>
> * * * * *
>
> [The Department of Corrections has advised it would not use a dye in flushing the intravenous line because Dr. Zivot warned that might cause a spike in Bucklew's blood pressure.] Reactionary changes at the eleventh hour, without the guidance of imaging or tests, create a substantial risk to Mr. Bucklew, who suffers from a complex and severe medical condition *that has compromised his veins*.
>
> * * * * *
>
> The DOC seems to acknowledge they agree with Dr. Zivot that Mr. Bucklew's obstructed airway presents substantial risks of needless pain and suffering, but what they plan to do about it is a mystery. Will they execute Mr. Bucklew in a seated position? . . . The DOC should be required to disclose how it plans to execute Mr. Bucklew so that this Court can properly assess whether additional risks are present. . . . Until

> Mr. Bucklew knows what protocol the DOC will use to kill him, and until the DOC is required to conduct the necessary imaging and testing to quantify the expansion of Mr. Bucklew's hemangiomas and the extent of his airway obstruction, it is not possible to execute him without substantial risk of severe pain and needless suffering.

Defendants' Suggestions in Opposition argued that Bucklew's "proposed changes . . . with the exception of his complaint about [dye], which Missouri will not use in Bucklew's execution, are not really changes in the method of execution."

Glossip and Baze established two requirements for an Eighth Amendment challenge to a method of execution. First, the challenger must "establish that the method presents a risk that is *sure or very likely* to cause serious illness and needless suffering, and give rise to sufficiently *imminent* dangers." Glossip, 135 S. Ct. at 2737 (emphasis in original), citing Baze, 553 U.S. at 50. This evidence must show that the pain and suffering being risked is severe *in relation to* the pain and suffering that is accepted as inherent in any method of execution. Id. at 2733. Second, the challenger must "identify an alternative that is feasible, readily implemented, and in fact significantly reduces a substantial risk of severe pain." Glossip, 135 S. Ct. at 2737, citing Baze, 553 U.S. at 52. This two-part standard governs as-applied as well as facial challenges to a method of execution. See, e.g., Jones v. Kelley, 854 F.3d 1009, 1013, 1016 (8th Cir. 2017); Williams v. Kelley, 854 F.3d 998, 1001 (8th Cir. 2017); Johnson v. Lombardi, 809 F.3d 388, 390 (8th Cir. 2015); Bucklew I, 783 F.3d at 1123, 1127. As a panel we are bound by these controlling precedents. Bucklew argues the second Baze/Glossip requirement of a feasible alternative method of execution that substantially reduces the risk of suffering should not apply to "an individual who is simply too sick and anomalous to execute in a constitutional manner," like those who may not be executed for mental health reasons. See, e.g., Ford v. Wainwright, 477 U.S. 399, 410 (1986). The Supreme Court has not recognized a categorical exemption from the death penalty for individuals with physical ailments or disabilities. Thus, in the decision on appeal, the district court

properly applied the Baze/Glossip two-part standard in dismissing Bucklew's as-applied claim.

We concluded in Bucklew I, based on a record "which went well beyond the four corners of Bucklew's complaint," that the complaint's allegations, bolstered by defendants' concession "that the Department's lethal injection procedure *would be changed* on account of his condition by eliminating the use of methylene blue dye," sufficiently alleged the first requirement of an as-applied challenge to the method of execution -- "a substantial risk of serious and imminent harm that is sure or very likely to occur." 783 F.3d at 1127. We further concluded the district court's *sua sponte* dismissal was premature because these detailed allegations made it inappropriate "to assume that Bucklew would decline an invitation to amend the as-applied challenge" to plausibly allege a feasible and more humane alternative method of execution, the second requirement under the Baze/Glossip standard. Id. In remanding, we directed that further proceedings "be narrowly tailored and expeditiously conducted to address only those issues that are essential to resolving" the as-applied challenge. Id. at 1128. We explained:

> Bucklew's arguments on appeal raise an inference that he is impermissibly seeking merely to investigate the protocol without taking a position as to what is needed to fix it. He may not be "permitted to supervise every step of the execution process." Rather, at the earliest possible time, he must identify a feasible, readily implemented alternative procedure that will *significantly* reduce a substantial risk of severe pain and that the State refuses to adopt. . . . Any assertion that all methods of execution are unconstitutional does not state a plausible claim under the Eighth Amendment or a cognizable claim under § 1983.

Id. (quotation omitted; emphasis in original).

II.

On remand, consistent with our directive, the district court first ordered Bucklew to file an amended complaint that adequately identified an alternative procedure. Twice, Bucklew filed amended complaints that failed to comply with this order. Given one last chance to comply or face dismissal, on October 13, 2015, Bucklew filed a Fourth Amended Complaint. As relevant here, it alleged:

> 106. Based on Mr. Bucklew's unique and severe condition, there is no way to proceed with Mr. Bucklew's execution under Missouri's lethal injection protocol without a substantial risk to Mr. Bucklew of suffering grave adverse events during the execution, including hemorrhaging, suffocating or experiencing excruciating pain.
>
> 107. Under any scenario or with any of lethal drug, execution by lethal injection poses an enormous risk that Mr. Bucklew will suffer extreme, excruciating and prolonged pain -- all accompanied by choking and struggling for air.
>
> 128. In May 2014, the DOC also proposed a second adjustment in its protocol, offering to adjust the gurney so that Mr. Bucklew is not lying completely prone.[3] . . . As a practical matter, no adjustment would likely be sufficient, as the stress of the execution may unavoidably cause Mr. Bucklew's hemangiomas to rupture, leading to hemorrhaging, bleeding in his throat and through his facial orifices, and coughing and choking on his own blood.
>
> 129. In order to fully evaluate and establish the risks to Mr. Bucklew from execution by lethal injection, a full and complete set of imaging studies must be conducted.

---

[3]In their answer to paragraph 128, defendants alleged: "Defendants admit that the Defendants offered to have the anesthesiologist position the angle of the gurney in a proper position." Thus, this fact was established by the pleadings.

> 139. Mr. Bucklew is mindful of the Court's directive to allege a feasible, readily implemented alternative procedure . . . . Mr. Bucklew has complied . . . by researching and proposing execution by lethal gas, which is specifically authorized by Missouri law and which Missouri's Attorney General has stated the DOC is prepared to implement.
>
> 150. In adherence with the pleading requirements set forth in *Glossip*, and as stated above, Mr. Bucklew specifically alleges lethal gas as a feasible and available alternative method that will significantly reduce the risk of severe pain to Mr. Bucklew.

In other words, Bucklew took the position that no modification of Missouri's lethal injection method of execution could be constitutionally applied to execute Bucklew. He proposed massive discovery allegedly needed to establish the first Baze/Glossip requirement. But his legal theory is that alternative procedures such as adjusting the gurney's position are irrelevant because *no* lethal injection procedure would be constitutional, only a change to the use of lethal gas would be adequate.

Bucklew's as-applied claim focused on two aspects of his medical condition. First, Bucklew's experts initially opined that his peripheral veins are so weak that injection of a lethal dose of pentobarbital would not adequately circulate, leading to a prolonged and painful execution. The district court concluded that discovery and expert opinions developed on remand refuted this claim. The lethal injection protocol provides that medical personnel may insert the primary intravenous (IV) line "as a central venous line" and may dispense with a secondary peripheral IV line if "the prisoner's physical condition makes it unduly difficult to insert more than one IV." Bucklew's expert Dr. Zivot conceded, and Defendants' expert, Dr. Joseph Antognini, agreed, that the central femoral vein can circulate a "fair amount of fluid" without serious risk of rupture and that Bucklew's medical condition will not affect the flow of pentobarbital after it is injected through this vein.

Second, Bucklew's experts opined that his condition will cause him to experience severe choking and suffocation during execution by lethal injection. When Bucklew is supine, gravity pulls the hemangioma tumor into his throat which causes his breathing to be labored and the tumor to rupture and bleed. When conscious, Bucklew can "adjust" his breathing with repeated swallowing that prevents the tumor from blocking his airway. But during the "twilight stage" of a lethal injection execution, Dr. Zivot opined that Bucklew will be aware he is choking on his own blood and in pain before the pentobarbital renders him unconscious and unaware of pain. Based on a study of lethal injections in horses, Dr. Zivot estimated there could be a period as short as 52 seconds and as long as 240 seconds when Bucklew is conscious but immobile and unable to adjust his breathing; his attempts to breath will create friction, causing the tumor to bleed and possibly hemorrhage. In Dr. Zivot's opinion, there is a "very, very high likelihood" that Bucklew will suffer "choking complications, including visible hemorrhaging," if he is executed by *any* means of lethal injection, including using the drug pentobarbital.

According to Defendants' expert, Dr. Antognini, pentobarbital causes death by "producing rapid, deep unconscious[ness], respiratory depression, followed by . . . complete absence of respiration, decreased oxygen levels, slowing of the heart, and then the heart stopping." In contrast to Dr. Zivot, Dr. Antognini opined that pentobarbital would cause "rapid and deep unconsciousness" within 20-30 seconds of entering Bucklew's blood stream, rendering him insensate to bleeding and choking sensations. Dr. Antognini also challenged Dr. Zivot's opinion that a supine Bucklew, unable to adjust his breathing, will be aware he is choking on his own blood and in pain from the tumor blocking his airway before the pentobarbital renders him unconscious. Dr. Antognini noted that, between 2000 and 2003, Bucklew underwent general anesthesia eight times, at least once in a supine position. In December 2016, Bucklew lay supine for over an hour undergoing an MRI, with no more than discomfort. The MRI revealed that his tumor had slightly shrunk since 2010.

In granting defendants summary judgment, the district court declined to rely on the first Glossip/Baze requirement because these conflicting expert opinions "would permit a factfinder to conclude that for as long as four minutes [after the injection of pentobarbital Bucklew] could be aware that he is choking or unable to breathe but be unable [to] 'adjust' his breathing to remedy the situation." Rather, the court held that Bucklew failed to provide adequate evidence that his alternative method of execution -- lethal gas -- was a "feasible, readily implemented" alternative that would "in fact significantly reduce a substantial risk of severe pain" as compared to lethal injection. Glossip, 135 S.Ct. at 2737; Baze, 553 U.S. at 52.

III.

To succeed in his challenge to Missouri's lethal injection execution protocol, Bucklew must establish both prongs of the Glossip/Baze standard. Glossip, 135 S. Ct. 2737. The district court held that Bucklew failed to establish the second prong of Glossip/Baze by showing that an alternative method of execution would "in fact significantly reduce a substantial risk of severe pain." As noted, Bucklew argues the Glossip/Baze standard should not apply to an as-applied challenge to a method of execution, an argument our controlling precedents have rejected. He raises two additional issues on appeal.

A. Bucklew first argues the district court erred in granting summary judgment on the second Glossip/Baze requirement because he presented sufficient evidence that his proposed alternative method of execution -- death through nitrogen gas-induced hypoxia -- "would substantially reduce his suffering." Summary judgment is not appropriate when there are material issues of disputed fact, and the Supreme Court in Glossip made clear that this issue may require findings of fact that are reviewed for clear error. See 135 S. Ct. at 2739-41 (majority opinion) and 2786 (Sotomayor, J., dissenting). However, whether a method of execution "constitutes cruel and unusual punishment is a question of law." Swindler v. Lockhart, 885 F.2d 1342, 1350 (8th

Cir. 1989). Thus, unless there are material underlying issues of disputed fact, it is appropriate to resolve this ultimate issue of law by summary judgment.

Nitrogen hypoxia is an authorized method of execution under Missouri Law. See Mo. Stat. Ann. § 546.720. Missouri has not used this method of execution since 1965 and does not currently have a protocol in place for execution by lethal gas. But there are ongoing studies of the method in other States and at least preliminary indications that Missouri will undertake to develop a protocol. Defendants do not argue this is not a feasible and available alternative.

The district court granted summary judgment based on Bucklew's failure to provide adequate evidence that execution by nitrogen hypoxia would substantially reduce the risk of pain or suffering. The court allowed Bucklew extensive discovery into defendants' knowledge regarding execution by lethal gas. But Missouri's lack of recent experience meant that this discovery produced little relevant evidence and no evidence that the risk posed by lethal injection is substantial *when compared to* the risk posed by lethal gas. See Glossip, 135 S. Ct. at 2738; Johnson, 809 F.3d at 391. Bucklew's *theory* is that execution by nitrogen hypoxia would render Bucklew insensate more quickly than lethal injection and would not cause choking and bleeding in his tumor-blocked airway. But his expert, Dr. Zivot, provided no support for this theory. Dr. Zivot's Supplemental Expert Report explained:

> [W]hile I can assess Mr. Bucklew's current medical status and render an expert opinion as to the documented and significant risks associated with executing Mr. Bucklew under Missouri's current Execution Procedure, I cannot advise counsel or the Court on how to execute Mr. Bucklew in a way that would satisfy Constitutional requirements.

Lacking affirmative comparative evidence, Bucklew relied on Dr. Antognini's deposition. In his Expert Report, Dr. Antognini concluded that "the use of lethal gas

would not significantly lessen any suffering or be less painful than lethal injection in this inmate." At his deposition, Dr. Antognini was asked:

> Q. Why does lethal gas not hold any advantage compared to lethal injection.
>
> A. Well . . . there are a lot of types of gases that could be used .... [U]sing gas would not significantly lessen any suffering or be less painful. Because, again, their onset of action is going to be relatively fast, just like Pentobarbital's onset -- onset of action.
>
> Q. That's it? Simply because it would happen quickly?
>
> A. Correct.

The district court concluded this opinion provided nothing to compare:

> Dr. Antognini specifically stated that he believed there would be no difference in the "speed" of lethal gas as compared to pentobarbital. . . . In the absence of evidence contradicting Defendants' expert and supporting Plaintiff's theory, there is not a triable issue.

On appeal, Bucklew argues the district court should have compared Dr. Zivot's opinion that lethal injection would take up to four minutes to cause Bucklew's brain death with Dr. Antognini's testimony that lethal gas would render him unconscious in the same amount of time as lethal injection, 20 to 30 seconds. But Dr. Antognini's comparative testimony was that both methods would result in unconsciousness in approximately the same amount of time. Bucklew offered no contrary *comparative* evidence and thus the district court correctly concluded that he failed to satisfy his burden to provide evidence "establishing a known and available alternative that would significantly reduce a substantial risk of severe pain." McGehee v. Hutchinson, 854 F.3d 488, 493 (8th Cir. 2017).

In addition, Bucklew's claim that he will experience choking sensations during an execution by lethal injection but not by nitrogen hypoxia rests on the proposition that he could be seated during the latter but not the former. He argues there is evidence he will be forced to remain supine during an execution by lethal injection, when his tumor will cause him to sense he is choking on his own blood, whereas he could remain seated during the administration of lethal gas, which would not cause a choking sensation. But this argument lacks factual support in the record. Having taken the position that *any* lethal injection procedure would violate the Eighth Amendment, Bucklew made no effort to determine what changes, if any, the DOC would make in applying its lethal injection protocol in executing Bucklew, other than defendants advising -- prior to remand by this court -- that dye would not be used.

Based on Bucklew's argument to the en banc court, we expected that the core of the proceedings on remand would be defining what changes defendants would make on account of Bucklew's medical condition and then evaluating *that modified procedure* under the two-part Baze/Glossip standard. On remand, Director of Corrections Ann Precythe testified that the medical members of the execution team are provided a prisoner's medical history in preparing for the execution. Precythe has authority to make changes in the execution protocol, such as how the primary IV line will be inserted in the central femoral vein or how the gurney will be positioned, if the team advises that changes are needed. While Bucklew sought and was denied discovery of the identities of the execution team's medical members, he never urged the district court to establish a suitable fact-finding procedure -- for example, by anonymous interrogatories or written deposition questions to the execution team members -- for discovery of facts needed for the DOC to define the as-applied lethal injection protocol it intends to use for Bucklew. As Bucklew did not pursue these issues, the pleadings established that defendants have proposed to reposition the gurney during Bucklew's deposition, and Director Precythe testified that she has authority to make this type of change in the execution protocol based on the execution team's advice based on review of Bucklew's medical history, but the record does not

disclose whether Bucklew will in fact be supine during the execution,[4] nor does it disclose that a "cut-down" procedure will not be used to place the primary IV line in his central femoral vein, a procedure Dr. Antognini opined was unnecessary. Bucklew simply asserts that, in comparing execution by lethal injection and by lethal gas, we must accept his speculation that defendants will employ these risk-increasing procedures. This we will not do.

Like the district court, we conclude the summary judgment record contains no basis to conclude that Bucklew's risk of severe pain would be substantially reduced by use of nitrogen hypoxia instead of lethal injection as the method of execution. Evidence that "is equivocal, lacks scientific consensus and presents a paucity of reliable scientific evidence" does not establish that an execution is sure or very likely to cause serious illness and needless suffering. Williams v. Kelley, 854 F.3d at 1001 (quotation omitted). Therefore, he failed to establish the second prong of the Glossip/Baze standard.

B. Bucklew further contends the district court erred in denying his requests for discovery relating to "M2" and "M3," two members of the lethal injection execution team. Bucklew argues he was entitled to discovery of the medical technicians' qualifications, training, and experience because it would "illuminate the nature and extent of the risks of suffering he faces." For example, if M3 was not qualified to safely place his IV in the central femoral vein, this would directly impact the risk of

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[4]Dr. Zivot surmised that Bucklew will be required to lie flat during lethal injection based on what he observed at an execution in Georgia. He gave no reason to believe that pentobarbital could not be injected through a femoral vein while Bucklew is seated. He merely opined that "[i]t's more difficult" to administer an anesthetic to someone who is sitting up. Dr. Antognini, in addition to opining that Bucklew would be rendered unconscious and insensate within 20 to 30 seconds of pentobarbital injection, noted that it was not necessary that Bucklew be supine in order to inject pentobarbital in his femoral vein.

pain and suffering. We review a district court's discovery rulings narrowly and with great deference and will reverse only for a "gross abuse of discretion resulting in fundamental unfairness." Marksmeier v. Davie, 622 F.3d 896, 903 (8th Cir. 2010).

Bucklew's argument proceeds from the premise that M2 and M3 may not be qualified for the positions for which they have been hired. But we will not assume that Missouri employs personnel who are incompetent or unqualified to perform their assigned duties. See Clemons v. Crawford, 585 F.3d 1119, 1128 (8th Cir. 2009). He further argues that deposition of M2 and M3 is necessary to understand how they will handle a circumstance in case something goes wrong during Bucklew's execution. The potentiality that something may go wrong in an execution does not give rise to an Eighth Amendment violation. Zink, 783 F.3d at 1101. "Some risk of pain is inherent in any method of execution -- no matter how humane -- if only from the prospect of error in following the required procedure. . . . [A]n isolated mishap alone does not give rise to an Eighth Amendment violation." Baze, 553 U.S. at 47, 50. Thus, the district court's ruling was consistent with our instruction in remanding that Bucklew "may not be permitted to supervise every step of the execution process." Bucklew I, 783 F.3d at 1128 (quotation omitted). The Baze/Glossip evaluation must be based on the as-applied pre-execution protocol, assuming that those responsible for carrying out the sentence are competent and qualified to do so, and that the procedure will go as intended.

III. Conclusion

Having thoroughly reviewed the record, we conclude that Bucklew has failed to establish that lethal injection, as applied to him, constitutes cruel and unusual punishment under the Eighth and Fourteenth Amendments. Therefore, we affirm the judgment of the district court.

COLLOTON, Circuit Judge, dissenting.

Russell Bucklew alleges that the State of Missouri's method of execution by lethal injection violates his rights under the Eighth and Fourteenth Amendments. He seeks an injunction prohibiting an execution by that method. The district court granted summary judgment for the State, but there are genuine disputes of material fact that require findings of fact by the district court before this dispute can be resolved. I would therefore remand the case for the district court promptly to conduct further proceedings.

Bucklew's claim under 42 U.S.C. § 1983 requires him to prove two elements: (1) that the State's method of execution is sure or very likely to cause him severe pain, and (2) that an alternative method of execution that is feasible and readily implemented would significantly reduce the substantial risk of severe pain. *Glossip v. Gross*, 135 S. Ct. 2726, 2737 (2015); *Bucklew v. Lombardi*, 783 F.3d 1120, 1123, 1128 (8th Cir. 2015) (en banc). On the first element, the district court concluded that taking the evidence in the light most favorable to Bucklew, there is a substantial risk under Missouri's lethal injection protocol that Bucklew will experience choking and an inability to breathe for up to four minutes. On the second element, however, the court ruled as a matter of law that Bucklew's suggested alternative method—execution by administration of nitrogen gas—would not significantly reduce the substantial risk that the court identified under the first element. In my view, the district court's reasoning as to the first element is inconsistent with its summary disposition of Bucklew's claim on the second.

On the first element, Bucklew's theory is that he will suffer severe pain by prolonged choking or suffocation if the State executes him by lethal injection. He contends that when he lies supine on the execution gurney, tumors in his throat will block his airway unless he can "adjust" his positioning to enable breathing. Bucklew

argues that if an injection of pentobarbital renders him unable to adjust his positioning while he can still sense pain, then he will choke or suffocate.

In assessing that claim, the district court cited conflicting expert testimony from Bucklew's expert, Dr. Joel Zivot, and the State's expert, Dr. Joseph Antognini. Dr. Antognini testified that if the State proceeded by way of lethal injection using pentobarbital, then Bucklew would be unconscious within twenty to thirty seconds and incapable of experiencing pain at that point. R. Doc. 182-5, at 10, 40-41. Dr. Zivot, however, differed: "I strongly disagree with Dr. Antognini's repeated claim that the pentobarbital injection would result in 'rapid unconsciousness' and therefore Mr. Bucklew would not experience any suffocating or choking." R. Doc. 182-1, at 147. Zivot opined that Bucklew "would likely experience unconsciousness that sets in progressively as the chemical circulates through his system," and that "during this in-between twilight stage," Bucklew "is likely to experience prolonged feelings of suffocation and excruciating pain." *Id.*

In his deposition, Dr. Zivot opined that "there will be points," before Bucklew dies, "where he's beginning to experience the effects of the pentobarbital, where his ability to control and regulate and adjust his airway will be impaired, although there will still be the experience capable of knowing that he cannot make the adjustment, and will experience it as choking." *Id.* at 81. When directed to Dr. Antognini's opinion that Bucklew would be unaware of noxious stimuli within twenty to thirty seconds of a pentobarbital injection, Dr. Zivot observed that Antognini's opinion was based on a study involving dogs from fifty years ago and testified that his "number would be longer than that." *Id.* at 85. When asked for his "number," Dr. Zivot pointed to a study on lethal injections administered to horses; he said the study recorded "a range of as short as fifty-two seconds and as long as about two hundred and forty seconds before they see isoelectric EEG." *Id.* at 85-86. Dr. Zivot noted that the "number" that he derived from the horse study was "more than twice as long as" the number suggested by Dr. Antognini. *Id.* at 86. He defined "isoelectric EEG" as

"indicative of at least electrical silence on the parts of the brain that the electroencephalogram has access to." *Id.*

The district court observed that "[a]n execution is typically conducted with the prisoner lying on his back," and that the record "establishes that [Bucklew] has difficulty breathing while in that position because the tumors can cause choking or an inability to breathe." The court understood Dr. Zivot to mean that "it could be fifty-two to 240 seconds before the pentobarbital induces a state in which [Bucklew] could no longer sense that he is choking or unable to breathe." Thus, the court concluded that "construing the Record in [Bucklew's] favor reveals that it could be fifty-two to 240 seconds before the pentobarbital induces a state in which [Bucklew] could no longer sense that he is choking or unable to breathe." Again, the court reasoned that "the facts construed in [Bucklew's] favor would permit a factfinder to conclude that for as long as four minutes [Bucklew] could be aware that he is choking or unable to breathe but be unable to 'adjust' his breathing to remedy the situation." On that basis, the court presumed for purposes of the motion for summary judgment that "there is a substantial risk that [Bucklew] will experience choking and an inability to breathe for up to four minutes."

The State disputes that there is a genuine dispute of material fact on the first element of Bucklew's claim, but the district court properly concluded that findings of fact were required. Bucklew pointed to evidence from Missouri corrections officials that prisoners have always laid flat on their backs during executions by lethal injection in Missouri. R. Doc. 182-7, at 10; R. Doc. 182-9, at 1; R. Doc. 182-12, at 29, 91. One official testified that he did not know whether the gurney could be adjusted. R. Doc. 182-12, at 91. Another official believed that the head of the gurney "could" be raised (or that a gurney with that capability could be acquired), and that an anesthesiologist would have "the freedom" to adjust the gurney "if" he or she determined that it would be in the best medical interest of the offender to do so. R. Doc. 182-7, at 14. But the State did not present evidence about how it would position

Bucklew or the gurney during his execution. On a motion for summary judgment, the district court was required to construe the evidence in the light most favorable to Bucklew. Under that standard, without undisputed evidence from the State that it would alter its ordinary procedures, the court did not err by concluding that a finder of fact could infer that the State would proceed as in all other executions, with Bucklew lying on his back.[5]

The State argues that the district court erred in discerning a genuine dispute of material fact on the first element because Dr. Zivot did not specify the length of the expected "twilight stage" during which Bucklew would be unable to adjust his positioning yet still sense pain. The State also complains that Dr. Zivot did not specify that Bucklew's pain awareness would continue for fifty-two seconds or longer until brain waves ceased. There certainly are grounds to attack the reliability and credibility of Dr. Zivot's opinion, including the imprecision of some of his testimony, his opposition to all forms of lethal injection, his possible misreading of the horse study on which he partially relied, and his inaccurate predictions of calamities at prior executions. But he did opine that Bucklew was likely to "experience prolonged feelings of suffocation and excruciating pain" if executed by lethal injection, R. Doc. 182-1, at 147, and that there "will be points" before Bucklew dies when his ability to regulate his airway will be impaired so that he "will experience it as choking." *Id.* at

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[5]Bucklew alleged in Paragraph 128 of his complaint that the State had offered to adjust the gurney so that Bucklew is not lying completely prone, but then continued as follows immediately thereafter: "Although the stated intent was to reduce the choking risk to Mr. Bucklew, the DOC has obtained no imaging studies of Mr. Bucklew since 2010, and therefore has no information on which to base any decisions about the angle of the gurney." R. Doc. 53, at 43-44. The district court noted the State's suggestion "that the execution could be performed with [Bucklew] in a different position," but explained that "there is no evidence whether this has an effect on the procedure as a whole," and concluded that the State had "not provided the Court with a basis for granting summary judgment based on the possibility of performing the execution with [Bucklew] in a sitting (or other) position."

81. The district court did not err in concluding that it could not resolve the dispute between the experts on summary judgment.

On the second element of Bucklew's claim, the district court concluded as a matter of law that Bucklew failed to show that his proposed alternative method of execution—administration of nitrogen gas—would significantly reduce the substantial risk of severe pain that the court recognized under the first element. The majority affirms the district court's judgment on this basis. Taking the evidence in the light most favorable to Bucklew, however, a factfinder could conclude that nitrogen gas would render Bucklew insensate more quickly than pentobarbital and would thus eliminate the risk that he would experience prolonged feelings of choking or suffocation. Dr. Antognini testified that a person who is administered nitrogen gas "would be unconscious very quickly," and that the onset of action from lethal gas "is going to be relatively fast, *just like Pentobarbital's onset*." R. Doc. 182-5, at 58-59 (emphasis added). Given Dr. Antognini's testimony that pentobarbital would render Bucklew insensate within twenty to thirty seconds, the record in the light most favorable to Bucklew supports a finding based on Antognini's testimony that nitrogen gas would relieve Bucklew from any pain of choking or suffocating within twenty to thirty seconds. A trier of fact may accept all, some, or none of a witness's testimony, *United States v. Candie*, 974 F.2d 61, 65 (8th Cir. 1992), and a plaintiff may rely on testimony from the defendant's expert to meet his burden if the testimony is advantageous to the plaintiff. *See IBEW Local 98 Pension Fund v. Best Buy Co., Inc.*, 818 F.3d 775, 782 (8th Cir. 2016). If the factfinder accepted Dr. Zivot's testimony as to the effect of pentobarbital, and Dr. Antognini's uncontroverted testimony as to effect of nitrogen gas, then Bucklew's proposed alternative method would significantly reduce the substantial risk of severe pain that the district court identified in its analysis of the first element.

For these reasons, there are genuine disputes of material fact that preclude summary judgment and require findings of fact by the district court. I would

therefore remand the case for further proceedings. The district court may then promptly make appropriate factual findings about, among other things, how Bucklew will be positioned during an execution, whether his airway will be blocked during an execution, and how pentobarbital (and, if necessary, nitrogen gas) will affect his consciousness and ability to sense potential pain.

* * *

The State contends that we should not reach the merits of Bucklew's claim because several procedural obstacles require dismissal of his complaint. The majority does not rely on these points, and I find them unavailing.

First, the State contends that Bucklew did not raise his present claim in his fourth amended complaint. Bucklew's complaint, however, does allege the essence of his current theory. The complaint asserts that the tumors in Bucklew's throat require "him to sleep with his upper body elevated" because if he lies flat, "the tumor then fully obstructs his airway." *Id.* at 18-19. It continued: "Executions are conducted on a gurney, and the risks arising from Mr. Bucklew's airway are even greater if he is lying flat. Because of the hemangiomas, Mr. Bucklew is unable to sleep in a normal recumbent position because the tumors cause greater obstruction in that position." R. Doc. 53, at 35. Bucklew further alleged that execution by lethal injection "poses an enormous risk that Mr. Bucklew will suffer extreme, excruciating and prolonged pain – all accompanied by choking and struggling for air." *Id.* at 36. The complaint was adequate under a notice pleading regime to raise a claim that the execution procedure would result in an obstructed airway and choking or suffocation.

If necessary, moreover, the district court acted within its discretion by treating the complaint as impliedly amended to include Bucklew's present claim. *See* Fed. R. Civ. P. 15(b)(2). Bucklew clearly notified the State of his contention in his opposition to the State's motion for summary judgment. R. Doc. 192-1, at 1-3, 11-17.

Yet rather than communicate surprise and object that the claim was not pleaded, the State addressed Bucklew's contention on the merits. R. Doc. 200, at 4-5. Where a party has actual notice of an unpleaded issue and has been given an adequate opportunity to cure any surprise resulting from a change in the pleadings, there is implied consent to an amendment. *Trip Mate, Inc. v. Stonebridge Cas. Ins. Co.*, 768 F.3d 779, 784-85 (8th Cir. 2014).

Second, the State argues that the five-year statute of limitations bars Bucklew's claim, because he was aware of his claim in 2008 and did not file his complaint until May 9, 2014. A claim under § 1983 accrues when a plaintiff has "a complete and present cause of action" and "can file suit and obtain relief." *Wallace v. Kato*, 549 U.S. 384, 388 (2007) (quoting *Bay Area Laundry & Dry Cleaning Pension Trust Fund v. Ferbar Corp. of Cal.*, 522 U.S. 192, 201 (1997)). Bucklew asserts that he did not have knowledge of his present claim, and therefore could not have filed suit and obtained relief, until his medical condition progressed and he was examined by Dr. Zivot in April 2014. As evidence that Bucklew could have brought his claim earlier, the State relies on a 2008 petition that Bucklew submitted to the Missouri Supreme Court. The petition sought funding for an expert witness to investigate the interaction of the State's existing execution protocol with Bucklew's health condition. The possible claim addressed in the 2008 funding petition, however, focused on the potential for uncontrolled bleeding and ineffective circulation of drugs within Bucklew's body under the State's former three-drug execution protocol. The petition does not demonstrate that Bucklew was then on notice of a claim that a future execution protocol using the single drug pentobarbital would create a substantial risk of severe pain resulting from tumors blocking his airway while laying supine during an execution.

Third, the State urges that Bucklew's claim is barred by *res judicata* or claim preclusion, because Bucklew could have litigated his as-applied challenge to the execution protocol in an earlier case styled *Zink v. Lombardi*, No. 12-04209-CV-C-

BP. In *Zink*, a group of inmates sentenced to death, including Bucklew, brought a facial challenge to Missouri's execution protocol. A complaint was filed in August 2012, and the eventual deadline for motions to amend pleadings was January 27, 2014. Principles of claim preclusion do not bar Bucklew's as-applied challenge if he was unaware of the basis for the claim in time to include it in the *Zink* litigation. *See Whole Woman's Health v. Hellerstedt*, 136 S. Ct. 2292, 2305 (2016). The State again points to Bucklew's 2008 funding petition in support of its preclusion defense, but for reasons discussed, that petition does not establish that Bucklew's present claim was available to him in 2008. At oral argument, the State argued that Bucklew could have added his as-applied challenge to the *Zink* litigation after he was examined by Dr. Zivot in April 2014, because the district court granted the *Zink* plaintiffs leave to amend their complaint in May 2014. But the court's order allowed the *Zink* plaintiffs leave to amend only a single count of the complaint to allege a feasible alternative method of execution. The order did not reopen the pleadings deadline for as-applied claims by the several individual plaintiffs. *See Zink v. Lombardi*, No. 12-04209-CV-C-BP, 2014 WL 11309998, at *4-5, 12 (W.D. Mo. May 2, 2014). The State therefore has not established that Bucklew's as-applied claim is barred by *res judicata*.

* * *

For these reasons, I would reverse the judgment of the district court and remand for further proceedings to be conducted with dispatch.

IN THE UNITED STATES DISTRICT COURT FOR THE
WESTERN DISTRICT OF MISSOURI
WESTERN DIVISION

RUSSELL BUCKLEW,	)	
	)	
Plaintiff,	)	
	)	
v.	)	Case No. 14-8000-CV-W-BP
	)	
GEORGE A. LOMBARDI, *et al.*,	)	
	)	
Defendants.	)	

ORDER AND OPINION GRANTING
DEFENDANTS' MOTION FOR SUMMARY JUDGMENT

Pending is Defendants' Motion for Summary Judgment, which seeks summary judgment on the Eighth Amendment Claim presented in Count I[1] of the Fourth Amended Complaint. Defendants contend that the undisputed facts demonstrate (1) they are entitled to judgment as a matter of law on the merits, (2) Plaintiff's claim is barred by the statute of limitations, and (3) Plaintiff's claim is barred by principles of claim preclusion.[2] As discussed below, the Court agrees that the undisputed facts in the Record establish that Plaintiff cannot prevail on his Eighth Amendment claim, and for that reason the motion, (Doc. 181), is **GRANTED.**[3]

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[1] Counts II and III were previously dismissed by the Court. (Doc. 63.)

[2] Defendants also contend the Court should dismiss the case because it lacks jurisdiction. (Doc. 182, pp. 9-10.) The argument has been presented before, and the Court rejects it for the reasons previously stated. (*See* Doc. 101.) To the extent that Defendants' argument has shifted to contend that the Court lacks jurisdiction because the Record now proves that Plaintiff will not suffer a redressable injury, the Court rejects this argument as well. Defendants' argument relates to Plaintiff's ability to prove his claim, not to the Court's jurisdiction, and crediting Defendants' argument would essentially require dismissal (without prejudice) for lack of jurisdiction anytime a plaintiff fails to prove his claim. It "is important not to conflate the injury and traceability requirements of a standing analysis with the plaintiff's ultimate burden of proof as to the issues of damages and causation at a trial on the merits," *Brown v. Medtronic, Inc.*, 628 F.3d 451, 457 (8th Cir. 2010), and this observation applies equally when the merits are considered at the summary judgment stage.

[3] The Court does not address the statute of limitations or claim preclusion arguments. These issues were not addressed before the first appeal, and the Court of Appeals declined to address them in the first instance. *Bucklew v. Lombardi*, 783 F.3d 1120, 1122 n.1, 1128-29 (8th Cir. 2015) (en banc). Following remand Defendants sought dismissal on these grounds, but the Court denied the request without prejudice because the Record was not yet

I. BACKGROUND

A. Procedural History

Plaintiff Russell Bucklew was convicted in state court of first degree murder, kidnapping, burglary, forcible rape, and armed criminal action. He was sentenced to death for the murder and various terms of years on the other crimes. *State v. Bucklew*, 973 S.W.2d 83 (Mo. 1998) (en banc), *cert. denied*, 525 U.S. 1082 (1999). His requests for postconviction relief and habeas relief were denied. *Bucklew v. State*, 38 S.W.3d 395 (Mo.) (en banc), *cert. denied*, 534 U.S. 964 (2001); *Bucklew v. Luebbers*, 436 F.3d 1010 (8th Cir.), *cert. denied*, 549 U.S. 1079 (2006).

Plaintiff filed this suit in May 2014. The Court dismissed the case, but the dismissal was reversed and the case was remanded. *Bucklew v. Lombardi*, 783 F.3d 1120, 1128 (8th Cir. 2015) (en banc). After the Mandate was issued, Bucklew filed a series of Amended Complaints. The latest – the Fourth Amended Complaint – is the operative pleading, and as noted earlier Count I is the only remaining count. Count I asserts an Eighth Amendment challenge, contending that Missouri's method of execution is unconstitutional as applied to Plaintiff because of his unique medical condition.

B. Facts

Plaintiff suffers from a congenital condition known as cavernous hemangioma. The disease causes clumps of weak, malformed blood vessels and tumors to grow throughout his body, including his head, face, neck and throat. The tumors are very susceptible to rupture. The

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sufficiently developed and various legal complexities (some of which had been identified by the Court of Appeals, 783 F.3d at 1122 n.1) had not been addressed. The Court's Order explained some of the difficulties involved in determining whether these doctrines apply. (Doc. 63, pp. 9-13.) The Supreme Court has since discussed the doctrine of claim preclusion when an as-applied challenge follows an unsuccessful facial challenge. *Whole Woman's Health v. Helerstedt*, 136 S. Ct. 2292, 2305 (2016). In reasserting these arguments Defendants have not addressed any of these factual or legal issues; they have merely cited general principles without explaining how they apply in this unique situation, and cited to the same facts that were earlier deemed to be incomplete and therefore insufficient. Given the Court's ruling on the merits there is no need to further delay resolution of this case to provide Defendants another opportunity to address these issues.

disease also affects Plaintiff's circulatory system, resulting in (among other effects) compromised peripheral veins in his hands and arms. The tumors in his throat also make it difficult for him to breathe, and that difficulty is exacerbated when he is in a supine position. Plaintiff's condition is incurable, and surgery to alleviate the tumors is not possible due to the risk of severe bleeding.

Missouri's death penalty protocol has not been succinctly described, but the parties implicitly agree (and the Record demonstrates, (*e.g.*, Doc. 182-1, pp. 135-36; Doc. 197-1; Doc. 182-7, pp. 7-9)),[4] that it involves the intravenous administration of pentobarbital in dosages sufficient to cause unconsciousness and eventually death. In terms of the IV's placement, the protocol provides as follows:

> Medical personnel shall determine the most appropriate locations for intravenous (IV) lines. Both a primary IV line and a secondary IV line shall be inserted unless the prisoner's physical condition makes it unduly difficult to insert more than one IV. Medical personnel may insert the primary IV line as a peripheral line or a central venous line (e.g., femoral, jugular, or subclavian) provided they have appropriate training, education and experience for that procedure. The secondary IV line is a peripheral line.

(Doc. 182-1, p. 1.) The parties seem to agree that because of the cavernous hemangioma Plaintiff's peripheral veins cannot be used in this process because of the risk that they will rupture (assuming that an IV could be placed in them in the first place). However, the portion of the protocol quoted above confirms that a central line in the femoral vein may be used instead of inserting an IV in the peripheral veins. With respect to the risk of Plaintiff's femoral vein rupturing, Plaintiff's expert, (Dr. Joel Zivot), testified that the femoral vein is large and capable of "tak[ing] a fair amount of fluid" when the central line is properly placed, and the risk of that vein rupturing is "unlikely." (Doc. 182-1, p. 26.) Dr. Zivot also denied having any reason to believe that Plaintiff's medical condition made his femoral vein more susceptible to rupture than

[4] All page numbers are those generated by the Court's CM/ECF system.

might otherwise be expected, and confirmed that his testimony about the risk of Plaintiff's veins rupturing was limited to Plaintiff's peripheral veins. (Doc. 182-1, pp. 70-71, 77-78.) Plaintiff also concedes that there is no evidence in the Record establishing that Plaintiff has any problem with his veins *other* than his peripheral veins, including his femoral vein. (Doc. 197, p. 9.) Finally, the Record confirms that Plaintiff's medical condition will not affect the flow of chemicals in his bloodstream once they are introduced through the femoral vein, or otherwise affect his expected response to the pentobarbital. (*E.g.*, Doc. 182-1, pp. 65-66, 213-14, 219.)

An execution is typically conducted with the prisoner lying on his back. The procedure for inserting a central line is also usually performed with the person in the supine position. The Record establishes that Plaintiff has difficulty breathing while in that position because the tumors can cause choking or an inability to breathe. Sometimes the tumors bleed, thereby exacerbating the sensation. When required to be on his back, Plaintiff can "adjust" his breathing so that he can remain in that position; for instance, Plaintiff was able to lie on his back for approximately one hour while undergoing an MRI. However, there are factual disputes as to (1) Plaintiff's ability to adjust his breathing once the pentobarbital begins to take effect, (Doc. 181-1, pp. 81-82), and (2) how quickly the pentobarbital will deprive Plaintiff of the ability to sense that he is choking or unable to breathe. On the latter point Dr. Zivot testified that it could be fifty-two to 240 seconds before the pentobarbital induces a state in which Plaintiff could no longer sense that he is choking or unable to breathe. (*E.g.*, Doc. 182-1, pp. 84-88.) Defendants point out that their expert, Dr. Joseph Antognini, opined that Plaintiff would be unconscious within twenty to thirty seconds and at that point would be incapable of experiencing pain. (Doc. 182-1, pp. 198-99; Doc. 182-5, pp. 60-62.) However, the Court cannot resolve this dispute between the experts on summary judgment.

Defendants also invite the Court to analyze the study Dr. Zivot relied upon to find that fifty-two seconds of awareness is the worst case scenario because that is when brain death occurs. (Doc. 200, p. 15.) Dr. Zivot addressed this issue in his deposition, explaining that the study's use of the term "brain death" was a "misnomer" because the study marked "brain death" before measurable brain activity terminated; he then indicated that pain might be felt until measurable brain activity ceases. (Doc. 182-1, pp. 83-86.)[5] The Court also cannot resolve this factual dispute on summary judgment. Therefore, construing the Record in Plaintiff's favor reveals that it could be fifty-two to 240 seconds before the pentobarbital induces a state in which Plaintiff could no longer sense that he is choking or unable to breathe.[6]

II. DISCUSSION

A moving party is entitled to summary judgment on a claim only upon a showing that "there is no genuine issue of material fact and that the moving party is entitled to a judgment as a matter of law." *See generally Williams v. City of St. Louis*, 783 F.2d 114, 115 (8th Cir. 1986). "[W]hile the materiality determination rests on the substantive law, it is the substantive law's identification of which facts are critical and which facts are irrelevant that governs." *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 248 (1986). Thus, "[o]nly disputes over facts that might affect the outcome of the suit under the governing law will properly preclude the entry of summary judgment." *Wierman v. Casey's Gen. Stores*, 638 F.3d 984, 993 (8th Cir. 2011) (quotation omitted). In applying this standard, the Court must view the evidence in the light

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[5] This may be a generous interpretation of Dr. Zivot's testimony. However, (1) the Record must be construed in the light most favorable to Plaintiff and (2) the Court is not required to resolve the elements of Plaintiff's claim in any particular order. Therefore, the Court deems it appropriate to adopt this interpretation of Dr. Zivot's testimony in order to frame the discussion about Plaintiff's proffered alternative method of execution.

[6] Defendants also suggest that the execution could be performed with Plaintiff in a different position, but there is no evidence whether this has an effect on the procedure as a whole or the procedure for inserting a central line specifically. In light of the Record's silence on these matters, Defendants have not provided the Court with a basis for granting summary judgment based on the possibility of performing the execution with Plaintiff in a sitting (or other) position.

most favorable to the non-moving party, giving that party the benefit of all inferences that may be reasonably drawn from the evidence. *Matsushita Elec. Indus. Co. v. Zenith Radio Corp.*, 475 U.S. 574, 587-88 (1986); *Tyler v. Harper*, 744 F.2d 653, 655 (8th Cir. 1984), *cert. denied*, 470 U.S. 1057 (1985). A party opposing a motion for summary judgment may not simply deny the allegations, but must point to evidence in the Record demonstrating the existence of a factual dispute. Fed. R. Civ. P. 56(c)(1); *Conseco Life Ins. Co. v. Williams*, 620 F.3d 902, 909-10 (8th Cir. 2010).

In *Glossip v. Gross*, the Supreme Court determined "what a prisoner must establish to succeed on an Eighth Amendment method-of-execution claim." 135 S. Ct. 2726, 2737 (2015). "[D]ecisions in this area have been animated in part by the recognition that because it is settled that capital punishment is constitutional, it necessarily follows that there must be a constitutional means of carrying it out." *Id.* at 2732-33. Moreover, "because some risk of pain is inherent in any method of execution, we have held that the Constitution does not require the avoidance of all risk of pain." *Id.* at 2733. In light of these observations, a prisoner alleging that a particular form of execution is cruel and unusual within the meaning of the Eighth Amendment must first establish that the method to be utilized "presents a risk that is sure or very likely to cause serious illness and needless suffering, and give rise to sufficiently imminent dangers." *Id.* at 2737 (quotations and emphasis deleted). The prisoner must then "identify a known and available alternative method of execution that entails a lesser risk of pain, a requirement of all Eighth Amendment method-of-execution claims." *Id.* at 2731. The alternative must be "feasible, readily implemented, and in fact significantly reduce[ ] [the] substantial risk of severe pain." *Id.* at 2737; *see also Bucklew*, 783 F.3d at 1128. The Court has discretion to decide the order in which it will address these two components of Plaintiff's claim. *Bucklew*, 783 F.3d at 1128.

A. Risk of Serious Illness or Needless Suffering

Defendants contend that the uncontroverted facts demonstrate that Plaintiff is not sure or likely to experience a serious injury or needless suffering. Plaintiff contends that he has demonstrated a serious risk that he will experience needless pain and suffering because (1) the weakness in his peripheral veins precludes using them to administer the pentobarbital, and (2) he will choke or otherwise be unable to breathe for an extended period of time before the pentobarbital takes full effect. The Court concludes that the Record establishes that (1) the use of Plaintiff's femoral vein does not present any risk of serious illness or needless suffering, and (2) the Record does not permit a conclusive determination regarding the risk that Plaintiff will choke and be unable to breathe for a period of time that would violate the Eighth Amendment.

1. Use of Plaintiff's Femoral Vein

As discussed in Part I.B, there is an apparent consensus that an IV cannot be safely inserted in Plaintiff's peripheral veins. However, the execution protocol allows a central line to be inserted in Plaintiff's femoral vein, and the Record establishes that this can be done without the risk of complications attributable to Plaintiff's congenital condition. The Court also notes that Plaintiff's legal argument does not discuss Defendant's evidence that his femoral vein can be used to administer the execution drugs. (Doc. 197, pp. 34-43.) Plaintiff discusses the use of his femoral vein only in the portion of his Opposition that addresses the facts in the Record, and even in that context he does not present any legal arguments based on those facts. Nonetheless, the Court will briefly discuss these factual issues.

Generally speaking, Plaintiff addresses the potential difficulty in locating the femoral vein and the fact that medical personnel might require multiple attempts to locate it.[7] This, he

[7] To the extent Plaintiff contends that there is no evidence demonstrating that Plaintiff's femoral veins are unaffected by his disease, this argument does not change the Court's opinion. If there is no evidence that will establish any

posits, will increase his stress, thereby increasing his breathing rate and making it more likely that he will choke. Plaintiff also suggests that if the procedure is not performed properly the drugs might be injected in an artery instead of the vein. (Doc. 197, pp. 18-20.) However, Plaintiff does not quantify these risks, nor (as stated) does he explain how these facts independently establish that the current protocol presents a risk of serious illness or needless suffering. The possibility that Plaintiff might experience increased stress (or, more precisely, more stress than the situation might otherwise produce) is particularly speculative, as are the effects of that extra stress. Moreover, on several occasions the Court has observed that Plaintiff cannot predicate his Eighth Amendment claim on the bare possibility that a medical procedure might be performed incorrectly.

The uncontroverted facts demonstrate that the lethal injection protocol can be implemented by using Plaintiff's femoral vein, and that doing so will not create a substantial risk of serious injury or needless suffering. Therefore, the fact that Plaintiff's peripheral veins cannot be used will not support the first component of Plaintiff's claim.

2. Plaintiff's Obstructed Airway

As discussed in Part I.B, the facts construed in Plaintiff's favor would permit a factfinder to conclude that for as long as four minutes Plaintiff could be aware that he is choking or unable to breathe but be unable "adjust" his breathing to remedy the situation. In seeking summary judgment Defendants have not contended that such a situation would not satisfy *Glossip* (and the Court does not hold whether it does or does not); Defendants' sole argument is that Plaintiff would likely experience this sensation for twenty to thirty seconds or, at worst, fifty-two seconds. As discussed before, this is a factual dispute that the Court cannot resolve on summary

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problems with the use of Plaintiff's femoral vein, then there is no reason to have a trial on the issue. Without evidence, it is a foregone conclusion that Plaintiff cannot prevail on this issue.

judgment, and would have to be resolved at trial. Therefore, solely for purposes of further discussion, the Court presumes that there is a substantial risk that Plaintiff will experience choking and an inability to breathe for up to four minutes.

B. Alternative Measures

Plaintiff contends that death through nitrogen gas-induced hypoxia will significantly reduce the risks of severe pain and suffering. Defendants do not argue that this method of execution is not feasible or readily implemented. Instead, Defendants argue that the Record demonstrates this method of execution will not reduce Plaintiff's risk of pain and suffering. Plaintiff disputes this point and further contends that he is not required to identify an alternative method of execution.

The Court addresses Plaintiff's second point first. He contends that *Glossip* does not apply because that case involved a facial challenge and he presents an as-applied challenge. The Court disagrees. First, *Glossip* set forth the requirements for an Eighth Amendment challenge to an execution method. The Supreme Court did not distinguish between facial and as-applied challenges, and it did not provide a basis for interpreting *Glossip* as creating such a distinction. To the contrary, the Supreme Court specified that the need to "identify a known and available alternative method of execution that entails a lesser risk of pain [is] a requirement of *all* Eighth Amendment method-of-execution claims." *Glossip*, 135 S. Ct. at 2731 (emphasis supplied). Second, the Eighth Circuit clearly directed that Plaintiff must (1) identify at the pleading stage and (2) eventually prove that there is an alternative that will significantly reduce the risk. *Bucklew*, 783 F.3d at 1128. This is the law of the case, and the Court must adhere to it. Third, the Eighth Circuit has explicitly rejected Plaintiff's argument in other cases. *Williams v. Kelley*, 854 F.3d 998, 1001 (8th Cir.), *cert. denied*, 137 S. Ct. 1284 (2017) (citing *Johnson v. Lombardi*,

809 F.3d 388, 391 (8th Cir.), *cert. denied*, 136 S. Ct. 601 (2015)). For these reasons, the Court concludes Plaintiff is required to prove that there is a feasible and readily available alternative that will significantly reduce the risk of suffering that lethal injection will present.

The Court agrees with Defendants that the facts in the Record do not present a triable dispute on this issue. Given the risk of suffering that the Court identified as potentially supported by the Record, (*see* Part II.A.2, *supra*), the question is whether (1) the use of nitrogen gas will cause Plaintiff to become unaware of his choking and breathing difficulties sooner than he would under the current protocol, and (2) whether that difference in time is sufficient to permit the Court to find that nitrogen gas will make a "significant" difference in Plaintiff's suffering. Put another way: a finder of fact might conclude that if pentobarbital is used, there is a four minute period of time during which Plaintiff would experience significant suffering. Given that, could a finder of fact conclude that the use of nitrogen gas will significantly reduce that period of awareness?

Defendants point to their expert's supplemental report, wherein he states that "the use of lethal gas does not hold any advantage compared to lethal injection with respect to pain and suffering. Both methods would result in minimal pain and suffering." (Doc. 182-1.) This requires Plaintiff to identify facts in the Record that create a factual dispute necessitating a trial, but Plaintiff has not identified any such facts. Dr. Zivot would not address the issue in his deposition, (Doc. 182-1, pp. 38-40), and Plaintiff does not contend that Dr. Zivot's testimony creates a factual dispute. Plaintiff instead relies on Dr. Antognini's deposition, but the Court has reviewed the cited testimony and finds nothing that supports Plaintiff's position.[8] Dr. Antognini

[8] Plaintiff also attempts to create factual disputes about the Missouri Department of Corrections' efforts to research the viability and effects of executing prisoners with nitrogen gas, but the issue is not relevant under the governing legal principles.

was asked to compare the use of pentobarbital to nitrogen gas, but his answer does not indicate that there are any differences between them. (Doc. 182-5, pp. 58-59.) To the contrary, he stated:

> You know, you get – you can get suffering from hypoxia, you know, because somebody can be awake and realize that they're not getting enough oxygen. So depending on – on how it's used, you might get more suffering from nitrogen gas than you would from Pentobarbital. Or you might get less suffering, you know, it depends on how you would use it, I guess.

(Doc. 182-5, p. 59.) As relevant to the claim at issue, Dr. Antognini specifically stated that he believed there would be no difference in the "speed" of lethal gas as compared to pentobarbital. (*Id.*) Plaintiff points to Dr. Antognini's indication that nitrogen gas would "quickly" cause unconsciousness, (Doc. 182-5, p. 59), but this is unavailing for two reasons. First, Dr. Antognini said the same thing about pentobarbital; in his opinion, both would "quickly" cause unconsciousness. Thus, this opinion does not support the proposition that nitrogen hypoxia would cause unconsciousness sooner than pentobarbital. Second, the premise for Plaintiff's claim is that there is a period between unconsciousness and brain death during which he will experience pain. Therefore, establishing the speed with which unconsciousness will be achieved does not support Plaintiff's claim; he must identify evidence establishing how quickly nitrogen-induced hypoxia will cause brain death so that any such evidence can be contrasted with Dr. Zivot's testimony that Plaintiff might be aware that he is choking for up to four minutes. There is no evidence suggesting that nitrogen hypoxia will be faster than pentobarbital, so there is no factual dispute to resolve. In the absence of evidence contradicting Defendants' expert and supporting Plaintiff's theory, there is not a triable issue.

Plaintiff also points to the fact that Louisiana and Oklahoma have approved the use of nitrogen gas in their death penalty protocols. This evidence might be relevant in establishing the feasibility or ready availability of this method of execution, but it does not establish whether

nitrogen gas will significantly reduce the risk of suffering Plaintiff has described. Plaintiff cites a report from Oklahoma for the proposition that "high altitude pilots who train to recognize the symptoms of nitrogen hypoxia in airplane depressurizations do not report any feelings of suffocation, choking or gagging." (Doc. 197, p. 48 n.6 (citing Doc. 192-14, p. 78).) Assuming this is competent evidence that can be considered on summary judgment, Plaintiff is not trained to recognize the symptoms of nitrogen hypoxia and it is unlikely that the pilots who were trained to recognize the symptoms of hypoxia also suffered from cavernous hemangioma. Plaintiff additionally refers to a report from Louisiana, which itself cites other materials for the proposition that nitrogen hypoxia allows a person to expel carbon dioxide buildup and thereby reduce suffocation caused by respiratory acidosis. (Doc. 197, p. 48 n.6 (citing Doc. 192-17, p. 19).) Assuming again that this is competent evidence, Plaintiff's theory is that he will experience suffocation due to his tumors, not due to respiratory acidosis. Finally, none of this evidence purports to compare the effects of nitrogen gas hypoxia to the effects of pentobarbital, particularly as related to the speed with which brain death will occur. Therefore, this anecdotal evidence does not conflict with Dr. Antognini's testimony and therefore does not create a factual dispute.[9]

The Record establishes that the use of nitrogen gas will not act faster than pentobarbital. Therefore, nitrogen gas will not significantly reduce the risk of suffering Plaintiff faces if he is executed under Missouri's current protocol.

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[9] Plaintiff has also provided a "Preliminary Draft" of a document prepared at the request of an Oklahoma State Representative. (Doc. 199-12, pp. 15-28.) The authors' qualifications to opine on medical matters are not established. The report bears the instruction "Do Not Cite." The report generally discusses the feasibility and effectiveness of using nitrogen gas in executions, but it does not purport to answer the questions relevant to the case. For these reasons, this report also does not create a factual dispute.

III. CONCLUSION

For the reasons set forth above, Defendants' Motion for Summary Judgment on Count I is **GRANTED.**

IT IS SO ORDERED.

/s/ Beth Phillips
BETH PHILLIPS, JUDGE
UNITED STATES DISTRICT COURT

DATE: June 15, 2017

IN THE UNITED STATES DISTRICT COURT FOR THE
WESTERN DISTRICT OF MISSOURI
WESTERN DIVISION

RUSSELL BUCKLEW,	)	
	)	
Plaintiff,	)	
	)	
v.	)	Case No. 14-8000-CV-W-BP
	)	
GEORGE A. LOMBARDI, *et al.*,	)	
	)	
Defendants.	)	

ORDER AND OPINION DENYING PLAINTIFF'S MOTION TO ALTER OR AMEND JUDGMENT

On June 15, 2017, the Court granted summary judgment to Defendants on the sole remaining claim from the Fourth Amended Complaint. (Doc. 202.) In that claim, Plaintiff asserted that the State's execution protocol as applied to him would violate the Eighth Amendment's proscription against cruel and unusual punishment. Plaintiff has now filed a Motion to Alter or Amend Judgment pursuant to Rule 59(e). "Rule 59(e) motions serve the limited function of correcting manifest errors of law or fact or to present newly discovered evidence." *United States v. Metropolitan St. Louis Sewer Dist.*, 440 F.3d 930, 933 (8th Cir. 2006). Plaintiff does not seek to present newly discovered evidence. Instead, he contends the Court (1) overlooked certain facts, (2) applied the wrong legal standard, and (3) limited discovery in a manner that deprived him of a fair opportunity to support his claims. The Court discusses each of these issues below and concludes the motion, (Doc. 210), should be **DENIED**.

I. BACKGROUND

Placing Plaintiff's arguments in context requires a summary of the law governing Plaintiff's claim and the basis for the Court's June 15 Order. As the Court explained,

> a prisoner alleging that a particular form of execution is cruel and unusual within the meaning of the Eighth Amendment must first establish that the method to be utilized presents a risk that is sure or very likely to cause serious illness and needless suffering, and give rise to sufficiently imminent dangers. The prisoner must then "identify a known and available alternative method of execution that entails a lesser risk of pain, a requirement of all Eighth Amendment method-of-execution claims. The alternative must be feasible, readily implemented, and in fact significantly reduce the substantial risk of severe pain.

(Doc. 202, p. 6 (quotations and citations omitted).) The current execution protocol calls for "the intravenous administration of pentobarbital in dosages sufficient to cause unconsciousness and eventually death." (Doc. 202, p. 3.) Plaintiff suffers from a congenital medical condition known as cavernous hemangioma, which "causes clumps of weak, malformed blood vessels and tumors to grow throughout his body, including his head, face, neck and throat." (Doc. 202, p. 2.) He alleges that his condition makes it difficult to breathe and that after the pentobarbital takes effect he will experience a choking sensation even after he is unconscious because he will be unable to control his breathing.

In granting Defendants' summary judgment the Court concluded that the Record, construed in the light most favorable to Plaintiff, demonstrated that there is a risk that Plaintiff will experience choking and an inability to breathe for fifty-two to 240 seconds – the time between unconsciousness and brain death. (Doc. 202, pp. 4-5, 8-9.) The Court then considered whether Plaintiff's proposed alternative – nitrogen gas – would "cause Plaintiff to become unaware of his choking and breathing difficulties sooner than he would under the current protocol, and (2) whether that difference in time is sufficient to permit the Court to find that nitrogen gas will make a 'significant' difference in Plaintiff's suffering." (Doc. 202, p. 10.) The Court reviewed the evidence in the Record and determined that the uncontroverted facts demonstrated that hypoxia induced by nitrogen gas "will not act faster than pentobarbital.

Therefore, nitrogen gas will not significantly reduce the risk of suffering Plaintiff faces if he is executed under Missouri's current protocol." (Doc. 202, p. 12.)

II. DISCUSSION

A. Factual Matters

Plaintiff contends that the Court erred by failing to contrast the effect of him being in a supine position under the State's current execution protocol evidence with his ability to be seated if he is executed with nitrogen gas. As the Court noted, Plaintiff has difficulty breathing, "and that difficulty is exacerbated when he is in a supine position." (Doc. 202, p. 3.) However, there is no evidence in the Record establishing that (1) Plaintiff must be in a supine position after the IV is inserted, or, more importantly, that (2) sitting while nitrogen gas is administered will make an appreciable difference in Plaintiff's ability to breathe. As the Court explained, "the premise for Plaintiff's claim is that there is a period between unconsciousness and brain death during which he will experience pain" because he will be unable to control his breathing and prevent choking. (Doc. 202, p. 11.) Plaintiff does not identify any overlooked evidence establishing that he must remain on his back after the IV is inserted.

He also does not identify any overlooked evidence that there is a significant difference in his ability to breathe when he is unconscious and sitting as compared to when he is unconscious and lying down. To the contrary, as the Court explained, there is no evidence in the Record establishing that nitrogen gas will cause brain death sooner than pentobarbital, which means that with nitrogen gas Plaintiff could be aware that he is choking for up to four minutes, just as the Record (construed in Plaintiff's favor) suggests would be the case with pentobarbital. (Doc. 202, p. 11.) Thus, even if he could not sit upright after the IV is inserted, there is no evidence suggesting this would cause suffering that would be alleviated through the use of nitrogen gas.

Plaintiff also contends the Court misinterpreted an Interim Report from a Grand Jury in Oklahoma, which heard testimony from a professor that "high altitude pilots who train to recognize the symptoms of nitrogen hypoxia in airplane depressurizations do not report any feelings of suffocation, choking, or gagging." (Doc. 192-14, p. 78.) The Court noted this information and observed that "[a]ssuming this is competent evidence that can be considered on summary judgment, Plaintiff is not trained to recognize the symptoms of nitrogen hypoxia and it is unlikely that the pilots who were trained to recognize the symptoms of hypoxia also suffered from cavernous hemangioma." (Doc. 202, p. 12.) Plaintiff argues that the Court misapprehended the point of this information, which was to establish that even pilots trained to recognize nitrogen hypoxia do not report choking or suffocation, so it is unlikely that Plaintiff would notice such effects. With this explanation, Plaintiff is correct that his lack of training is not relevant. However, Plaintiff has not overcome the Court's concerns that a professor's testimony to a grand jury about what pilots have reported is not competent medical evidence about the effects of nitrogen hypoxia. Relatedly, it remains unlikely that the pilots suffered from cavernous hemangioma, so their anecdotal reports are not sufficient to satisfy Plaintiff's burden.

Plaintiff's claim required evidence establishing that nitrogen hypoxia produces a shorter time between unconsciousness and brain death than would pentobarbital. There is no such evidence in the Record. There is, however, evidence that the time between unconsciousness and brain death (whatever that interval is) would be the same under both execution methods. Accordingly, there is no basis in fact for altering the Court's judgment.

B. Interpretation and Application of the Legal Standard

Plaintiff contends the Court has "imposed an impossible standard on Plaintiff" because his unique medical condition makes it impossible for him to produce the "side-by-side

comparison between the length of time required to produce unconsciousness by lethal injection versus lethal gas." (Doc. 210, p. 5.) He also believes he was "penalize[d] . . . because his expert would not opine on how to kill Plaintiff with lethal gas." (*Id.*) While Plaintiff argues against the legal standard utilized by the Court, he does not contend that it was wrong. That is, Plaintiff does not argue that the Court failed to follow the governing standard as set forth in such cases as *Glossip v. Gross*, 135 S. Ct. 2726 (2015), and *Bucklew v. Lombardi*, 783 F.3d 1120 (8th Cir. 2015) (en banc), and thus has not demonstrated that the Court committed legal error.

C. Discovery Issues

Early in the discovery process, the Court issued an Order Regarding the Scope of Discovery. (Doc. 105.) Plaintiff contends that his "ability to prove his Eighth Amendment claim has been crippled by" limits on access to information about and from members of the execution team. (Doc. 210, p. 6.) The Court addressed the issue in the order regarding the scope of discovery, as well as at other times, (*e.g.*, Doc. 183; Doc. 214), and further discussion of the issue is unnecessary.

III. CONCLUSION

For these reasons, Plaintiff's motion for relief pursuant to Rule 59(e) is **DENIED**.

IT IS SO ORDERED.

/s/ Beth Phillips
BETH PHILLIPS, JUDGE
UNITED STATES DISTRICT COURT

DATE: August 21, 2017

IN THE UNITED STATES DISTRICT COURT FOR THE
WESTERN DISTRICT OF MISSOURI
WESTERN DIVISION

RUSSELL BUCKLEW,	)	
	)	
Plaintiff,	)	
	)	
v.	)	Case No. 14-08000-CV-W-BP
	)	
GEORGE A. LOMBARDI, DAVID DORMIRE, and TROY STEELE,[1]	)	
	)	
Defendants.	)	

ORDER REGARDING SCOPE OF DISCOVERY

Plaintiff was convicted in state court of kidnaping, rape and murder, and was sentenced to death. He challenges Missouri's planned method of execution as applied to him, contending that the current lethal injection protocol will cause him needless suffering and pain in violation of the Eighth Amendment. At the Court's direction the parties filed briefs regarding the scope of discovery, and the parties' positions conflict in certain respects.

The Court will confine the scope of discovery to the matters alleged in Count I of the Fourth Amended Complaint. This Order is intended to provide guidance regarding the proper scope of discovery.

I. BACKGROUND

A.

The scope of discovery is informed by the issues involved in the case, so the Court begins by describing Plaintiff's claim and the governing law. Plaintiff's remaining claim is Count I of the Fourth Amended Complaint. (Doc. 53; *see also* Doc. 63 (dismissing Counts II and III of the

[1] Troy Steele has succeeded Terry Russell as the Warden of the Eastern Reception, Diagnostic, and Correctional Center. Accordingly, Troy Steele is substituted as a Defendant in place of Terry Russell. Fed. R. Civ. P. 25(d). The Clerk of Court is directed to amend the Docket Sheet accordingly.

Fourth Amended Complaint).) As has been described in various orders, Plaintiff suffers from cavernous hemangioma, which is a congenital condition that causes clumps of weak, malformed blood vessels and tumors to grow throughout his body, including his head, face, neck and throat. These tumors are very susceptible to rupture. Plaintiff alleges that execution by lethal injection is likely to cause the tumors to rupture because lethal injection depends on the circulatory system, and that the ruptures can increase his pain and suffering because (1) the chemicals will not travel through his body in the manner intended and (2) ruptured tumors in his throat can cause him to choke. The Fourth Amended Complaint does not allege that changing the lethal injection protocol will alleviate these risks; to the contrary, the allegations broadly relate to any method of lethal injection. The Fourth Amended Complaint alleges that execution by lethal gas will significantly reduce the risk that tumors will rupture and will not cause the needless suffering associated with an execution method that relies on his compromised circulatory system.

In declining to dismiss this claim, the Court held that Plaintiff's allegations satisfied the pleading requirements set forth in *Glossip v. Gross*, 135 S. Ct. 2726 (2015). There, the Supreme Court described its prior holdings as establishing that a plaintiff must establish "a substantial risk of serious harm, an objectively intolerable risk of harm that prevents prison officials from pleading that they were subjectively blameless for purposes of the Eighth Amendment." 135 S. Ct. at 2737 (quotations omitted). A plaintiff must then "identify an alternative that is feasible, readily implemented, and in fact significantly reduces a substantial risk of severe pain." *Id.* (quotation omitted). *Glossip*'s holding is similar to the Eighth Circuit's prior decision in *Zink v. Lombardi*, where the Court of Appeals held that "to establish a constitutional violation, an inmate ultimately must prove that another execution procedure exists that is feasible and readily

implemented, and that the alternative method will significantly reduce a substantial risk of severe pain." 783 F.3d 1089, 1103 (8th Cir.) (en banc), *cert. denied*, 135 S. Ct. 2941 (2015).

B.

Plaintiff has proposed discovery be conducted in six broad categories: the execution protocol, the lethal chemicals utilized, the execution team, alternative methods of execution, DOC policies and procedures, and "Fact and/or Expert Witnesses." Specific topics are set forth within each category. In addition, Plaintiff intends to "depose all medical members of the execution team and the protocol team" as well as all fact and expert witnesses (among others). Plaintiff also indicates he "may request" an opportunity inspect the execution chamber.

Defendants contend that discovery should be conducted in phases. They propose that the first phase be limited to the feasibility of lethal gas as a method of execution, the likelihood that lethal gas will decrease the risk of pain, and matters related to Defendants' statute of limitations defense. Defendants intimate there would then be an opportunity for them to seek summary judgment, reasoning that if Plaintiff cannot prevail on the issues involved in the first discovery phase there is no need to conduct further discovery. Should Plaintiff demonstrate at least a triable issue that his claim is not time-barred and that lethal gas is feasible and will significantly decrease the risk of pain and suffering, discovery can proceed to the second phase. At that time, discovery regarding Plaintiff's medical condition and the effects of lethal injection can be conducted. Finally, Defendants contend that many subjects described in Plaintiff's discovery plan are unnecessary in light of the issues to be resolved.

II. DISCUSSION

A.

For ease of discussion, the Court first addresses Defendants' proposal to conduct phased discovery. The Court is not persuaded that phased discovery will prove beneficial. In remanding this case, the Eighth Circuit suggested that "[t]he District Court will have the usual authority to control the order of proof, and if there is a failure of proof on the first element that it chooses to consider, it would not be an abuse of discretion to give judgment for defendants without taking further evidence." *Bucklew v. Lombardi*, 783 F.3d 1120, 1128 (8th Cir. 2015) (en banc) (quotation omitted). The Court now has the benefit of the Fourth Amended Complaint, and the issues it presents suggests that parsing out some issues for discovery and reserving others will not be useful. For instance, Defendants suggest that Phase 1 include discovery related to the likelihood that lethal gas will significantly reduce the risk of unnecessary pain and injury to Plaintiff. However, determining the extent to which lethal gas will reduce that risk requires consideration of the effect of lethal gas on Plaintiff given his medical condition – and Defendants suggest that discovery about Plaintiff's condition be postponed until Phase 2. Similarly, determining whether any reduction in pain and suffering is "significant" – a matter Defendants propose for Phase 1 – requires a comparison to the pain and suffering that is likely to occur through the use of lethal injection, but Defendants propose that discovery on this issue also be postponed until Phase 2.

The Court further believes that phased discovery may result in duplication of effort and prolong the ultimate resolution. For instance, if discovery occurs in phases, witnesses may have to be deposed twice: first to discuss lethal gas, then again to discuss lethal injection. Defendants' proposal also raises the potential of multiple "rounds" of dispositive motions, one after each

phase of discovery. Finally, discovery is currently scheduled to close by the end of this year, and dispositive motions are to be filed by the end of January 2017. (Doc. 79, ¶¶ 5, 7.) Even if these deadlines are extended for some reason, the Court doubts that phased discovery would expedite the ultimate resolution of this case, particularly given that the scope of discovery will not be as broad as Plaintiff contemplates. (*See* Part II.B, *infra*.) For these reasons, the Court is disinclined to require that discovery be conducted in phases.

B.

The scope of discovery is limited to nonprivileged matters[2] that are "relevant to any party's claim or defense and proportional to the needs of the case, considering" a variety of factors. Fed. R. Civ. P. 26(b)(1). In light of Plaintiff's proposal, the most problematic factors are "the importance of the issues at stake in the action [and] the importance of the discovery in resolving the issues," *id.*, because these considerations demonstrate Plaintiff's planned scope for discovery is overly broad.

As noted earlier, Plaintiff has proposed discovery be conducted in six broad categories, with each category containing specific topics. The Court's discussion is organized around these six categories.

1. Execution Protocol – Plaintiff anticipates requesting documents relating to the development and adoption of the current protocol, research regarding the chemicals to be used, the effects of those chemicals on the human body, documents concerning alternative lethal injection protocols that were researched or considered, and "documents concerning the complete execution protocol, including all phases of the execution, from the arrival of the team at the facility to the documentation and disposal of the lethal chemicals." (Doc. 100, p. 7.) Some of

[2] The Court does not offer an opinion regarding Defendants' claim of privilege because, as Defendants concede, "[p]rivilege analysis is beyond the scope of" the parties' briefing, (Doc. 102, pp. 6), and because the issue is best addressed in the context of a specific discovery request.

this information is relevant to the issues in the case. For instance, Plaintiff is entitled to discover the execution protocol that Defendants intend to employ, including the chemicals to be used and the manner in which the chemicals will be administered. Plaintiff is also entitled to obtain any information Defendants may have regarding the chemicals' effects on the human body. However, information relating to "the documentation and disposal of the lethal chemicals" is not related to Plaintiff's claims. Similarly, information related to other methods of lethal injection that might have been considered by DOC is not relevant because Plaintiff does not claim use of different chemicals is a viable alternative: not only is this revealed by the Fourth Amended Complaint, but he admits that he "has alleged that any execution by lethal injection poses unacceptable and unconstitutional risks to him . . . ." (Doc. 100, p. 6.) Finally, "documents about the development and adoption of the current lethal injection protocol, including each protocol developed since 2013 and all amendments and changes," (Doc. 100, p. 7), are not relevant to any issues in the case. The current protocol is relevant, but prior protocols and the evolution of the process over time are not relevant.

Plaintiff justifies discovery about alternative chemicals and further details about the process to guard against Defendants contending that lethal injection is the only available and viable method of execution. In that event, Plaintiff wishes to conduct broad discovery to "seek[ ] ways that changes or alterations not previously known or contemplated might significantly reduce the risks to Mr. Bucklew and, hence, achieve compliance with the Constitution." (Doc. 100, p. 6.) However, the only alternative method Plaintiff has pleaded is execution by lethal gas – he has not alleged that changes to the lethal injection protocol or the use of different chemicals will "achieve compliance with the Constitution." To the contrary, he has disclaimed the possibility that any utilization of lethal injection will reduce the risk of pain and suffering.

The Fourth Amended Complaint does not justify wide-ranging scrutiny into matters unrelated to his claims.[3] This conclusion is not only supported by Rule 26 generally, but by the pleading requirements set forth in *Glossip* and *Zink*. As the Eighth Circuit explained, "[t]he existence of . . . an alternative method of execution . . . is a necessary element of an Eighth Amendment claim, and this element – like any element of a claim – must be pleaded adequately." *Zink*, 783 F.3d at 1103. Moreover, a general allegation "that other methods would be constitutional, devoid of further factual enhancement, fails to state a claim under the Eighth Amendment." *Id.* Here, Plaintiff has not even made a general allegation that changes to the lethal injection process would be constitutional – he has instead denied that any changes can be made. Thus, he has not presented an Eighth Amendment challenge that justifies exploring intricate details of the lethal injection protocol in order to determine if changes can be made.

2. Lethal Chemicals – Plaintiff seeks a list of the chemicals utilized by the State to execute inmates, and the Court agrees Plaintiff is entitled to discover the chemicals that the State intends to use. Plaintiff is also entitled to obtain packaging, labeling, and other inserts to the extent that they describe the chemicals' contents or their effects on the human body (including warnings), although the name of the manufacturer or provider can be redacted.

Plaintiff would seek documents relating to the purchase, procurement, prescriptions, attempts to obtain chemicals, the DOC's inventory and expiration dates, and the method of maintaining, storing and securing lethal chemicals. None of this information is relevant to Plaintiff's claim.

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[3] Plaintiff also points to the Court's prior observation that "'if discovery reveals the availability or feasibility of a different, as-yet unpleaded method, there are procedures to deal with such an eventuality.'" (Doc. 107, p. 3 (quoting Doc. 52, p. 10).) The Court did not intend this statement to permit Plaintiff to conduct discovery beyond the bounds set by the pleadings.

3. Execution and Protocol Teams (Medical and Non Medical) – This category seeks information about the individuals who will participate in or conduct the execution. Plaintiff explains that "given the severity of his medical condition, the training and qualifications of the execution team members are especially important, as the risks of a botched or excruciating execution are particularly great in his case." (Doc. 100, p. 6.) However, his remaining claim does not allege that changing the execution team members will significantly decrease the risk of pain and suffering, so the relevance of this information is not evident. This information might have been relevant to Count II,[4] but Count II was dismissed. The Court holds that detailed discovery about the execution team members is unnecessary to resolving the issues in this case. Plaintiff may obtain, as part of the discovery regarding the execution protocol, information generally describing the composition of the team (*e.g.*, the number of doctors, nurses, anesthesiologists) as well as the functions they will perform. Finally, in light of the lack of a relationship between the execution team members and the specifics of Plaintiff's claim, the Court discerns no need for Plaintiff to learn the identities of, or depose, the execution team members.

4. Alternative Methods of Execution – Within this category Plaintiff seeks documents regarding alternative methods of execution and further specifies that the scope of this category includes, but is not limited to, lethal gas. Information related to lethal gas is clearly relevant because Plaintiff has alleged that lethal gas is a viable and available alternative and a basis for believing that lethal gas will significantly decrease the risk of pain and suffering. However, it is the only alternative method he has alleged, so it is the only method for which discovery is justified and the breadth of this category must be limited accordingly.

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[4] Count II alleged, among other things, that executing Plaintiff would violate the Constitution because there was "no contingency plan in the event the lethal drugs fail to kill Mr. Bucklew" and there was no training of personnel or contingency plans in place to address the possibility of a "botched execution." (Doc. 53, ¶¶ 155-57.)

5. DOC Policies and Procedures – The topics in this category relate to DOC policies for obtaining or using lethal chemicals, as well as documents relating to the training of execution team members. To the extent that "prescribing, administering, or using" lethal chemicals relates to the protocol, this information has been addressed in the context of other categories. The remaining respects are beyond the proper scope of discovery for this case. Plaintiff's claim does not depend upon how or from where the chemicals are procured, nor does it depend on the execution team's training. Therefore, discovery into these issues is unnecessary.

6. Fact and/or Expert Witnesses – This category seeks findings and conclusions from fact and expert witnesses, and other information that must be disclosed pursuant to Rule 26(a)(2). Obviously, the parties must comply with Rule 26(a)(2). It is not clear what else this category encompasses, so the Court cannot comment further.

III. CONCLUSION

For the reasons set forth above, the Court denies Defendants' request that discovery be conducted in phases. Moreover, the scope of discovery shall be limited to the claim and theory advanced in Count I of the Fourth Amended Complaint, as set forth more fully in Part II.B of this Order.

IT IS SO ORDERED.

/s/ Beth Phillips
BETH PHILLIPS, JUDGE
UNITED STATES DISTRICT COURT

DATE: August 11, 2016

IN THE UNITED STATES DISTRICT COURT FOR THE
WESTERN DISTRICT OF MISSOURI
WESTERN DIVISION

RUSSELL BUCKLEW,	)	
	)	
Plaintiff,	)	
	)	
v.	)	Case No. 14-8000-CV-W-BP
	)	
GEORGE A. LOMBARDI, *et al.*,	)	
	)	
Defendants.	)	

ORDER GRANTING IN PART AND DENYING IN PART PLAINTIFF'S MOTION TO COMPEL

This is a civil rights lawsuit, brought by a condemned inmate. Plaintiff contends that the State's method of execution as applied to him violates the Eighth Amendment because of his unique medical condition. More specifically, Count I of the Fourth Amended Complaint alleges that given his circulatory and related disorders, execution through lethal injection poses a risk of severe pain and suffering that can be alleviated if he is executed through the use of lethal gas. Counts II challenged the staffing and procedures to be employed during the execution and Count III asserted Plaintiff's First Amendment rights were violated because he was not provided information about the source of the chemicals to be used in the execution. These two claims were dismissed. (Doc. 63, pp. 14-16.)

Early in the discovery process, the Court issued an Order Regarding Scope of Discovery ("the Scope Order"). (Doc. 105.) The Order discussed broad categories and determined that some were proper subjects of discovery and some were not.

Shortly before the discovery deadline of March 10, 2017, Plaintiff contacted the Court to seek resolution of outstanding discovery disputes. A telephone conference was held on March 15, 2017, ("the March 15 conference"), following which the Court, *inter alia*, directed Plaintiff

to file a Motion to Compel. (Doc. 163, pp. 1-2.) The parties were also directed to provide any related written discovery requests and the corresponding answers/objections.

The Motion to Compel, (Doc. 169), is fully briefed. It raises issues regarding (1) Plaintiff's request to elicit further information related to, or depositions of, members of the execution team (particularly M2 and M3), (2) Defendants' provision of a privilege log, and (3) Defendants' efforts to fully search e-mails for responses to the discovery requests. The Court has considered the parties' written arguments, the discovery requests, and the comments made during the March 15 conference. In light of these materials, the pleadings, and the Court's prior Orders (including the Scope Order), the Court resolves the parties' arguments as discussed below.

I. Additional Information About Members of the Execution Team

Plaintiff contends that Defendants should be required to provide additional information about the members of the execution team. Specifically, Plaintiff wants information about the team members' training and experience, as well as access to depositions of team members taken in other cases that are the subject of Protective Orders issued in those cases. Defendants contend that this information is not relevant in light of Plaintiff's remaining claim. Consistent with its prior rulings, the Court agrees with Defendants that this information exceeds that which is necessary in light of Count I's allegations.

The Court's explanation begins with the Fourth Amended Complaint, and in particular the differences between Count I (the only remaining claim) and Count II (which has been dismissed). Count I alleges that the use of lethal injection violates the Constitution because of Plaintiff's cavernous hemangioma and related complications. Plaintiff does not contend that using different chemicals, or administering chemicals in a different way, will diminish the risk of

pain and suffering. According to Count I, the only way to significantly diminish the pain and suffering resulting from lethal injection is to execute Plaintiff with lethal gas. In contrast, Count II alleged that Plaintiff "will experience pain and suffering unless certain changes are made in the lethal injection protocol, and the failure to make these changes constitutes a deliberate indifference to his serious medical needs in violation of the Eighth Amendment." (Doc. 63, p. 14.) The Court dismissed Count II because the Fourth Amended Complaint did not "allege sufficient facts to indicate that the staffing and planning procedures Defendants intend to utilize will create a substantial risk of serious harm" and "does not allege what procedures should be employed (other than not performing an execution)." (Doc. 63, pp. 14-15.)

The differences in the allegations (and fates) of Counts I and II formed the basis for several decisions in the Scope Order, including the Court's decision regarding information about the execution team. The Scope Order's discussion of the issue is set forth below:

> Plaintiff explains that "given the severity of his medical condition, the training and qualifications of the execution team members are especially important, as the risks of a botched or excruciating execution are particularly great in his case." (Doc. 100, p. 6.) However, his remaining claim does not allege that changing the execution team members will significantly decrease the risk of pain and suffering, so the relevance of this information is not evident. This information might have been relevant to Count II, but Count II was dismissed. The Court holds that detailed discovery about the execution team members is unnecessary to resolving the issues in this case. Plaintiff may obtain, as part of the discovery regarding the execution protocol, information generally describing the composition of the team (*e.g.*, the number of doctors, nurses, anesthesiologists) as well as the functions they will perform. Finally, in light of the lack of a relationship between the execution team members and the specifics of Plaintiff's claim, the Court discerns no need for Plaintiff to learn the identities of, or depose, the execution team members.

(Doc. 105, p. 8 (footnote omitted).) Thus, the additional information Plaintiff now seeks is barred by the Scope Order.

Plaintiff contends that the Scope Order should be amended because his claim requires he prove that the execution protocol presents a substantial risk of serious harm and that an alternative method of execution will significantly reduce that risk. However, the substantial risk of serious harm that forms the basis for Count I does not depend on the execution team's training and experience. For instance, while Count I alleges that the execution protocol will cause him to hemorrhage, cough, choke and suffocate, thereby suffering an "excruciating execution," it does not allege that this risk is due to the execution team's training or expertise. Count I also does not allege that more or different training will decrease these risks.

Relatedly, Plaintiff contends that information about the individuals involved in his execution – including their training – is relevant "because during various depositions in this case, Defendants made clear that there are various unwritten and/or informal protocols that Defendants and the execution team rely upon to carry out an execution – many of which are contingent on the degree of training of the medical team members." (Doc. 169, p. 10.) As an example, it may be necessary to utilize a central line or a cutdown procedure, and Plaintiff wants to explore the execution team members' qualifications for performing these procedures. However, this explanation is no different than the explanation Plaintiff originally offered prior to entry of the Scope Order, and it remains the case that Plaintiff's claim does not depend upon either the manner in which a lethal injection is performed or the qualifications of the execution team members. Discovery is appropriate to determine how a central line or a cutdown procedure affects the risk of pain and suffering Plaintiff has identified. However, Plaintiff's claim does not depend on "how well qualified" the execution team is.

Finally, Plaintiff suggests that the execution team's qualifications and training are at issue because some information on these topics has been divulged during discovery. (Doc. 169, pp. 3-

4; *see also* Doc. 164, pp. 13-14.) The Court does not agree that mere discussion of or reference to a topic during discovery makes further discovery on that matter appropriate. There is no claim remaining that requires consideration of the execution team's qualifications and training, so the Court concludes that the Scope Order sets proper limits on discovery. Plaintiff's request for additional details about the execution team members and access to their depositions from other cases is denied.

II. Privilege Log

Plaintiff served Interrogatories and a Request for Production of Documents ("RFP") in November 2016. Defendants responded in December 2016.[1] In most respects, Defendants' responses (1) raised "non-privilege based" objections, including objections based on vagueness, temporal scope, or perceived violations of the Scope Order, (2) reserved various privileges depending on how the other objections were resolved, (3) provided responsive documents, or (in some cases) (4) described documents that were privileged. The parties discussed Defendants' objections but did not agree on a resolution.

In presenting the issues to the Court at this juncture, Plaintiff focuses on Defendants' claims of privilege and argues the Defendants have not provided a privilege log as required by Rule 26(b)(5). Defendants rely on Rule 34(b)(1)(C) to contend that their obligation was fulfilled so long as they "explicitly identified in the discovery response (and production log) if a relevant privileged record communication was withheld and explained the basis for that privilege." (Doc. 173, p. 16.) The Court disagrees with Defendants and concludes that Rule 26(b)(5)(ii) – which specifically describes the contents of a privilege log – controls.

[1] The discovery requests issued to each Defendant are similar, as are the responses. Plaintiff has supplied the requests posed to Defendant George Lombardi (and his responses) to represent all of the requests and responses.

However, a privilege log is required only "[w]hen a party withholds information *otherwise discoverable*," Fed. R. Civ. P. 26(b)(5)(A) (emphasis supplied), and with Defendants' other objections unresolved it has not been established that Defendants are withholding any discoverable information because it is privileged. Thus, before addressing Defendants' obligations under Rule 26(b)(5), the Court must determine whether anything Plaintiff has not been provided is discoverable.

Interrogatory #1 asks Defendants to identify all policies and protocols that apply to execution by lethal injection. Defendants provided the current written execution protocol, and Plaintiff is not entitled to anything further.[2] Defendants also suggest a "closed portion" of the protocol is not being disclosed pursuant to § 546.720 of the Revised Missouri Statutes, which relates to identification of members of the execution team; this is sufficient to identify what has been withheld and is functionally equivalent to the information required by Rule 23(b)(5).

Interrogatory #2 asks for policies and protocols related to execution by lethal gas. Defendants initially answered this interrogatory by stating that the Department of Corrections ("DOC") "does not use lethal gas and has no lethal gas protocol." In a Supplemental Response (made after the parties conferred), Defendants pointed out that the DOC last utilized lethal gas for an execution in 1965. Plaintiff's explanation as to why the protocols and procedures from 1965 are pertinent are not persuasive, and the Court agrees with Defendants that it exceeds the needs of this case for them to ascertain the protocols for a procedure last used in 1965. The Court further notes that Defendants did not assert any privileges in their response to this interrogatory, so there are no privilege issues to be considered.

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[2] At least, it *appears* from the text of Defendants' answers that they provided the current written execution protocol. The Court does not know what documents are identified by the specified Bates Numbers. Regardless, the current written execution protocol *should* be provided to Plaintiff, and the Court's rulings presume this has occurred.

Interrogatory #3 asks for several categories of information related to the chemicals used during a lethal injection. The Court concludes that much of the information sought is unnecessary given the claim that remains in the case. Plaintiff's claim does not depend on "the manner in which the chemicals are prepared and administered" or "the process and reasoning behind the selection of those particular chemicals and their respective doses." Therefore, this information need not be provided; and, given that the only privileges asserted relate to these matters, there is no need for Defendants to prepare a privilege log. Plaintiff is entitled to information that identifies the chemicals to be used, the doses, and "any risks, side-effects, or complications that could arise from their use." However, Defendants supplied information identifying the chemicals to be used and the manner in which they will be administered. Defendants also stated that they lack the medical training necessary to offer their own opinions about possible risks, side effects and complications, and they have no documents addressing these issues. Thus, Plaintiff has received answers to the portions of Interrogatory #3 to which he is entitled.

Interrogatory #4 is similar to Interrogatory #3 in that it asks Defendants to describe the chemicals that are, or might be, used by DOC when using lethal gas as the means of execution. Defendants stated that there are currently no such chemicals, and consistent with its ruling regarding Interrogatory #2 the Court is not convinced that the chemicals used in 1965 (or before) are relevant to this case. Nonetheless, Defendants' Supplemental Response states that DOC used cyanide gas, and Defendants are not required to speculate as to what chemicals would be used if DOC were to start utilizing lethal gas as a means of execution. For these reasons Defendants' response to Interrogatory #4 (including the Supplemental Response) provides all the information to which Plaintiff is entitled and nothing has been withheld based on a privilege.

Interrogatory #5 seeks "the process by which the current drug protocols were selected and included in the Execution Procedures," but the Scope Order already determined that this was not allowed. (Doc. 105, p. 6-7.) Therefore, Defendants need not document their claims of privilege.

Interrogatory #6, which asks Defendants to identify all documents "related to the viability or feasibility of lethal gas as an execution method in Missouri," is addressed not only by Defendants' initial response and Supplemental Response, but also by an e-mail, (Doc. 177-2), Defendants sent to the Court and to Plaintiff's counsel on March 30, 2017, ("the March 30 e-mail"). Initially, Defendants contended the request was overly broad in that it was not limited in time – an objection the Court believes was appropriate. Defendants also asserted attorney/client, work product, and deliberative process privileges. In the Supplemental Response, Defendants contended they do not have any responsive documents. The March 30 e-mail describes a search of the e-mails of all Defendants and of attorneys in the DOC's general counsel's office, using the search terms "lethal gas" and "gas chamber." The search uncovered six documents, and Defendants contend all are privileged as attorney/client communications or attorney work product.[3] The e-mail further identifies the six e-mails by date, author, recipient and subject matter. The Court concludes that the e-mail constitutes an adequate privilege log for the six documents referenced therein.

Interrogatory #7, Interrogatory #8, and Interrogatory #11 are similar to Interrogatory #1 in that they asks for details about particular steps in the lethal injection protocol. Defendants' responses to Interrogatory #7, Interrogatory #8 and Interrogatory #11 are similar to those they provided for Interrogatory #1; the Court's ruling is the same as well.

[3] Plaintiff references the March 30 e-mail in his Reply Suggestions, but presents no argument suggesting that the documents identified therein are not privileged.

Interrogatory #9 essentially asks Defendants to identify roles, responsibilities and functions of the execution team members. Notwithstanding Defendants' various objections they have supplied this information. Moreover, what Defendants has supplied is consistent with the Scope Order, (*see* Doc. 105, p. 8), and the Court's discussion in Part I of this Order. The only privileged information withheld is the names of the execution team members, and as discussed in the context of Interrogatory #1 the information supplied satisfies Defendants' obligations under Rule 26(b)(5).

Interrogatory #10 is similar to Interrogatory #9, but it asks for identification of members of the execution team if execution is performed through the use of lethal gas. The fact that DOC does not utilize lethal gas in executions answers this question. The Court further notes that Defendants did not assert any privileges in their response to this interrogatory, so there are no privilege issues to be considered.

Interrogatory #12 is similar to Interrogatory #2 in that it asks about the process by which an inmate would be executed through the use of lethal gas. Defendants' answer is similar to that which was provided for Interrogatory #2, and the Court's ruling is the same as well.

Interrogatory #13 asks for detailed information about the execution team members' training. This issue has been addressed by the Scope Order, (Doc. 105, p. 8), and the discussion in Part I of this Order.

Interrogatory #14 asks for all "contingency plans that exist for when any complications arise during an execution by lethal injection." Plaintiff has been supplied the DOC's execution protocol, so Plaintiff has been supplied all formalized contingency plans for anticipated complications. Obviously, there might be unanticipated complications – but there is no way for Defendants to describe contingency plans for events that are not anticipated. And, a request for

all unwritten contingency plans is too vague. The Court concludes Defendants have answered this interrogatory by providing the DOC's execution protocol. The Court further notes that Defendants did not assert any privileges in their response to this interrogatory (other than one related to the identification of the execution team members), so there are no privilege issues to be considered.

Interrogatory #15 asks for contingency plans for executions by lethal gas; Defendants respond that DOC does not perform executions by lethal gas, which answers the interrogatory. The Court further notes that Defendants did not assert any privileges in their response to this interrogatory, so there are no privilege issues to be considered.

Interrogatory #16 follows up on the preceding two interrogatories by asking if there are no contingency plans, why it is that none exist. Defendants' response explains that there are no contingency plans with respect to the use of lethal gas because DOC does not utilize lethal gas. While there are no responses purporting to explain the lack of additional contingency plans in the lethal injection protocol, the request is too vague and broad to be enforced. There are no objections to this response (based on privilege or otherwise), and there is no need for the Court make a further ruling.

Interrogatory #17 asks for information about "failed executions or executions that did not follow the applicable protocol in effect at the time . . . including any and all information related to why those executions failed and any steps or actions taken in response." Defendants posed an objection, noting (correctly) that this interrogatory exceeds the bounds set by the Scope Order. Then, notwithstanding its objection, Defendants answered that there have been no such executions. The Court deems this response sufficient, particularly in light of the restrictions set

in the Scope Order. The Court further notes that Defendants did not assert any privileges in their response to this interrogatory, so there are no privilege issues to be considered.

Interrogatory #18 would require Defendants to identify all persons responsible for monitoring Plaintiff's medical condition in the weeks before the execution, as well as information about such persons. Defendants presented a series of objections, one of which is based on relevance. The Court concludes this objection should be sustained. Plaintiff's claim is that (1) use of lethal injection – regardless of the chemicals utilized and regardless of the procedures utilized – will cause a serious risk of severe pain and suffering and (2) execution with lethal gas will significantly reduce this severe risk. Count II of Plaintiff's Fourth Amended Complaint alleged that Plaintiff's rights were violated because Defendant did not have a plan for taking necessary steps to assess Defendant before and during the execution, but the Court dismissed Count II. Interrogatory #18 might have been relevant to Count II, but it is not relevant to the sole remaining count.

Interrogatory #19 asks Defendants to identify all communications, records, or correspondence involving Plaintiff's medical condition, as well as his "physical or mental fitness for execution." Defendants present several objections, some of which are based on privilege and some of which are not. The Court does not find all of them applicable.

Defendants objected because the interrogatory is not specific as to time and because Plaintiff "is not currently under an active warrant of execution." These objections are overruled. The lack of a time frame does not make this request burdensome; Defendants can (and should) provide Plaintiff with all information they have about his medical condition. The Court also holds the fact that there is or is not currently a warrant of execution is no bar to providing the information.

IN THE UNITED STATES DISTRICT COURT

WESTERN DISTRICT OF MISSOURI

RUSSELL BUCKLEW,	)	
	)	
Plaintiff,	)	
	)	
vs.	)	Case No. 4:14-CV-8000-BP
	)	
GEORGE A. LOMBARDI,	)	
	)	
DAVID A. DORMIRE	)	
	)	
and	)	
	)	
TERRY RUSSELL,	)	
	)	
Defendants.	)	

RULE 26(a)(2) EXPERT REPORT

SUPPLEMENTAL EXPERT REPORT OF JOEL B. ZIVOT, M.D.

I, JOEL B. ZIVOT, being of sound mind and lawful age, hereby state under penalty of perjury as follows:

I. QUALIFICATIONS

A. Education

1. I received my Doctor of Medicine from the University of Manitoba, Canada, in 1988. From 1989–1993, I was a resident in Anesthesiology at the University of Toronto, Department of Post Graduate Medical Education, and from 1993–1995, I completed an additional residency in Anesthesiology and a Fellowship in Critical Care Medicine at the Cleveland Clinic Foundation, Department of Anesthesiology in Cleveland, Ohio.

B. Professional Licenses, Certifications and Memberships

1. I hold an active medical license from the State of Georgia and have held unrestricted medical licenses in Ohio, the District of Columbia, Michigan, and the Canadian provinces of Ontario and Manitoba. I also hold an active license to prescribe narcotics and other controlled substances from the federal Drug Enforcement Administration (DEA).

DEFENDANT'S EXHIBIT 2 Dr. Zivot Depo 3-8-17

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2. I hold board certification in Anesthesiology from the Royal College of Physicians and Surgeons of Canada and the American Board of Anesthesiology. I am also board certified in Critical Care Medicine from the American Board of Anesthesiology.

C. Professional Experience

1. I have served as the Medical Director of the Cardio-Thoracic Intensive Care Unit and the Fellowship Director for Critical Care Medicine at Emory University Hospital. I am an Associate Professor of Anesthesiology and Surgery at the Emory University School of Medicine and an adjunct Professor of Law at Emory University Law School. A complete list of my qualifications and publications authored in the last ten years is provided in my curriculum vitae attached as Exhibit A to this report.

2. I have practiced anesthesiology and critical care medicine for 22 years, and, in that capacity, I have personally performed or supervised the care of more than 42,000 patients.

3. In the course of my career, I have regularly performed or supervised the anesthesia care of numerous patients whose airways would be termed "difficult" or "very difficult" according to the Mallampati Classification. Airway evaluation includes this prediction score on securing the airway, where Mallampati I is predicted to be straightforward and Mallampati IV is predicted to be very difficult.

4. I am, by reason of my experience, training, and education, an expert in the fields of anesthesiology and critical care medicine. The opinions that follow are within my field of expertise, and are stated to a reasonable degree of medical and scientific certainty unless otherwise noted.

5. A complete list of the cases in which I have given expert testimony is attached as Exhibit B to this report.

D. Compensation

1. My compensation in this matter is as follows: (1) expert fee of $400/hour; (2) 15 hours of record and document review, report writing, and consultation with counsel since October 2016; and (3) approximately 12 hours of travel and examination of Mr. Bucklew with an estimated cost of $3000.00.

II. SUBJECT OF OPINIONS

A. I have been asked by Mr. Bucklew's attorneys in the above-referenced case to render an expert opinion regarding the risks and complications stemming from Mr. Bucklew's deteriorating medical condition—specifically the growing obstruction in Mr. Bucklew's airway—on the execution of Mr. Bucklew by means of lethal injection.

B. As a medical doctor, I am ethically prevented from prescribing or proscribing a method of executing a person. I am bound by these ethics, and am prohibited from assessing whether a different form of execution would be feasible. Therefore, while I can assess Mr. Bucklew's current medical status and render an expert opinion as to the documented and significant risks associated with executing Mr. Bucklew under Missouri's current Execution Procedure, I cannot advise counsel or the Court on how to execute Mr. Bucklew in a way that would satisfy Constitutional requirements.

C. In developing my opinion, and in addition to the materials I reviewed in connection with my declaration dated May 8, 2014, I have considered the following: (1) The report of medical imaging performed at Barnes-Jewish Hospital dated December 23, 2016 [Exhibit C]; (2) Mr. Bucklew's December 19, 2016 MRI and CT imaging from Barnes-Jewish Hospital at Washington University in St. Louis Missouri [Exhibit D]; (3) my own in-person examinations of Mr. Bucklew conducted on May 12, 2014 and on January 8, 2017; (4) Mr. Bucklew's medical records; (5) the Missouri Department of Corrections Procedure for Execution (the "Execution Procedure"); and (6) the Declaration of Joseph F. Antognini dated November 8, 2016.

III. SUMMARY OF OPINIONS

A. Mr. Bucklew suffers from a debilitating, incurable, and progressive condition known as cavernous hemangioma. This condition occurs sporadically and congenitally in the population and not as a consequence of any action on the part of Mr. Bucklew. This condition has caused large diffuse, vascular (blood-filled) tumors to form and grow in Mr. Bucklew's nasal cavity, face, and throat. Cavernous hemangiomas in the nasal cavity, face, and throat are a medically recognized cause of death by suffocation.

B. As a result of the hemangiomas located in Mr. Bucklew's nasal cavity, face and throat, and to a lesser-degree residual scar tissue from a past tracheostomy procedure, Mr. Bucklew's airway is medically termed a "very difficult" airway. Specifically, on the Mallampati four-point scale, Mr. Bucklew's airway is a Mallampati class IV. It is highly likely that Mr. Bucklew, as a result of having a Mallampati class IV airway, would require a surgical airway (i.e., tracheostomy)

in order to safely undergo a surgical procedure requiring a general anesthetic.[1] Mr. Bucklew's airway is so compromised that it is highly unlikely that he could be safely intubated without experiencing a serious hemorrhagic event within his throat.

C. Because of the degree to which Mr. Bucklew's airway is compromised by the hemangiomas, the anatomical mechanics of airflow and breathing, and the particular psychological and physical effects of lethal injection, it is highly likely that Mr. Bucklew would be unable to maintain the integrity of his airway during the time after receiving the lethal injection and before death.

D. Contrary to Dr. Antognini's assertion, the effect of pentobarbital injection as outlined in the Execution Procedure is highly unlikely to be experienced as "rapid unconsciousness followed by death." In my professional medical opinion, the effects of such an injection are highly unlikely to be instantaneous and the period of time between receiving the injection and death could range over a few minutes to many minutes. My view here is supported both by my own professional knowledge of how chemicals of this type are likely to exert their effects in the body as well as by the terms of Missouri's Execution Procedure, which calls for a waiting period of five minutes after the first two pentobarbital injections, before examining the inmate to determine whether death has occurred. The Execution Procedure expressly acknowledges that the first two Pentobarbital injections may not have caused death within five minutes, in which case a second round of injections is required.

E. As a result of his inability to maintain the integrity of his airway for the period of time beginning with the injection of the Pentobarbital solution and ending with Mr. Bucklew's death several minutes to as long as many minutes later, Mr. Bucklew would be highly likely to experience feelings of "air hunger" and the excruciating pain of prolonged suffocation resulting from the complete obstruction of his airway by the large vascular tumor.

F. As a result of this prolonged experience of suffocation, it is highly likely that Mr. Bucklew will struggle to breathe — a struggle apparent as convulsive movements—and as a result, given the highly friable and fragile state of the tissue of Mr. Bucklew's mouth and airway, he will likely experience hemorrhaging and/or the possible rupture of the tumor. The resultant hemorrhaging will further impede Mr. Bucklew's airway by filling his mouth and airway with blood, causing him to choke and cough on his own blood during the lethal injection process. It is not necessary that Mr. Bucklew be fully conscious in order to experience the excruciating pain and feeling of prolonged suffocation. Also,

[1] Note that while I generally object to Dr. Antognini's comparison between the medical act of general anesthesia and the non-medical act of lethal injection, for the limited purpose of this opinion I refer to the necessity of a tracheotomy in order to undergo general anesthesia only as a frame of reference for the degree to which Mr. Bucklew's airway is compromised. In short, even in a room full of doctors, Mr. Bucklew could not safely lose consciousness by way of sedation without the immediate capability of performing a surgical airway.

regardless of whether Mr. Bucklew is fully conscious, bleeding in his mouth and throat will cause choking and coughing and the coughed blood will be visible to viewers of the execution procedure.

G. In summary, I conclude with a reasonable degree of medical and scientific certainty that it is highly likely that Mr. Bucklew, given his specific congenital medical condition, cannot undergo lethal injection without experiencing the excruciating pain and suffering of prolonged suffocation, convulsions, and visible hemorrhaging.

IV. OBJECTIVE FACTUAL BASES FOR OPINIONS

A. A patient's airflow during breathing will typically be described as either being laminar or turbulent. Laminar flow is a smooth, orderly, linear flow of air with low resistance and is experienced as "easy" breathing by the patient. Turbulent flow, by contrast, is disorganized, has high resistance, and is experienced by the patient as "difficult" breathing. Four factors impact whether airflow is laminar or turbulent: (1) aperture or diameter of the airway, (2) length of the airway, (3) velocity of the flow, and (4) density of the gas. Of these four factors, the most pertinent in this case is the aperture of the airway. The smaller or more obstructed a patient's airway becomes, the more turbulent the flow of air becomes. This aperture narrowing is experienced by the patient as an inability to easily breathe. When a patient feels as though he cannot take a breath, the usual reaction is to breathe harder and faster to take in more air. This triggers the third factor listed above: "velocity of the flow." The faster a patient breathes, the more turbulent the flow becomes, particularly through a narrow or obstructed airway.

B. Diameter of the airway, or aperture, can be further understood with reference to the Mallampati classification used to describe how "difficult" it is to secure an airway in the setting of a medical procedure. An airway can be difficult because of anatomical abnormalities, both congenital and acquired. In this case difficulty in maintaining airway patency is a direct consequence of cavernous hemangiomas in Mr. Bucklew's airway.

C. In clinical cases where a patient has a Mallampati IV airway, an anesthesiologist must proceed with extreme caution and implement specialized precautions, such as creating a surgical airway via tracheotomy, to maintain the integrity of the patient's airway in order to safely prepare a patient for any procedure where the patient is sedated and unable to assist in supporting his or her own ventilation. This is supported by Mr. Bucklew's own medical records, referenced by Dr. Antognini, in which it was noted that Mr. Bucklew underwent a tracheotomy in connection with surgical procedures under general anesthesia [Decl. of Antognini; PC486].

D. Cavernous hemangioma is a condition that results in vascular lesions consisting of abnormally dilated blood vessels. These blood vessels form cavern-like pockets, i.e. vascular tumors or hemangiomas, in which blood pools. The pockets then

leak, or hemorrhage, as a result of defects in the walls of the blood vessels. The lesions can vary in size, and are linked to varying side effects including seizures, stroke symptoms, hemorrhages, and headaches, depending upon the size and location of the particular lesion, and the relative strength of the walls of the affected blood vessels. In addition, symptoms may resolve or reappear over time as the vascular tumor changes in size as it leaks and reabsorbs blood.

E. While the vascular tumors are often benign, in certain cases, such as Mr. Bucklew's, the progressive condition is life-threatening as it eventually leads to obstruction of the patient's airway leading to asphyxiation and death.

V. RECORD EVIDENCE SUPPORTING OPINIONS

A. Historic Medical Records

1. Mr. Bucklew's medical records indicate that, since birth, he has suffered from cavernous hemangioma resulting in vascular tumor formations in his face, brain, and throat. [Bates PC202]. The specific hemangioma at issue affects Mr. Bucklew's nasal cavity, face, right eye, and airway approaching both the base of Mr. Bucklew's skull and his carotid artery. [PC202]. The location of Mr. Bucklew's hemangioma has resulted in a grossly enlarged uvula and narrowing of his airway resulting in generally turbulent air flow, which Mr. Bucklew experiences as shortness of breath or difficulty breathing.

2. Mr. Bucklew's condition is inoperable due to the severe risk of blood loss during surgery. Furthermore, due to the large size of the hemangioma, Mr. Bucklew's condition has been found to no longer be amenable to sclerotherapy [PC2257].

3. As a result of his condition, Mr. Bucklew has experienced "excruciating" pain and numerous hemorrhagic events, including bleeding from the face and mouth, necessitating emergency trips to the medical unit in which pressure with gauze was applied in order to slow the bleeding. [see e.g. PC2238, PC2227, PC2506].

4. As previously described in my Supplemental Declaration dated December 4, 2015, Mr. Bucklew's tumors are painful, easily bleed, and spontaneously hemorrhage. Mr. Bucklew has described past hemorrhages as sometimes "squirting" blood, while other times presenting as a "slow leak." [PC103].

5. Specifically with respect to Dr. Antognini's discussion of Mr. Bucklew's procedures between 2000 and 2003, Mr. Bucklew's records confirm that he underwent procedures in that time period that required general anesthesia. Records of a procedure that occurred in 2000, however, explicitly state that Mr. Bucklew received a tracheotomy, a procedure undertaken in cases of difficult airways for purposes of maintaining the

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integrity of the airway while a patient is under anesthesia. [PC486]. Contrary to Dr. Antognini's apparent conclusion that Mr. Bucklew's airway does not warrant any special considerations, Mr. Bucklew's records show that special procedures were undertaken to account for Mr. Bucklew's difficult airway.

B. Findings of In-Person Examinations

1. The tumors obstructing Mr. Bucklew's airway are so large that Mr. Bucklew is no longer able to lie down flat on his back while sleeping without suffocating. On January 8, 2017, Mr. Bucklew explained that in order to breathe while sleeping, he must sleep on his right side with his head elevated at roughly a 45 degree angle. This position allows Mr. Bucklew to sleep without his airway becoming obstructed by the turn in his airway and his grossly enlarged uvula.

2. Even with the above precautions, Mr. Bucklew explained that his uvula occasionally gets "stuck" in his throat while he sleeps, causing him to wake up feeling as though he is choking and unable to breathe. In addition, the above precautions do not prevent Mr. Bucklew's tumors from leaking or hemorrhaging during the night. When asked to describe his typical morning, Mr. Bucklew explained that the first thing he does each morning is to clean off the blood on his face that leaked from his nose and mouth while he slept.

3. During my examination of Mr. Bucklew on January 8, 2017, I noted several large hemangiomas visible in Mr. Bucklew's hard and soft palate, lip, nose, and uvula. Of particular relevance to the aperture of Mr. Bucklew's airway were the grossly enlarged uvula and the easily visible hemangiomas on his hard and soft palates. Mr. Bucklew also has an easily visible hemangioma growing out of his upper lip and over his mouth. This tumor has enlarged in size since my prior examination of Mr. Bucklew.

4. In addition to the hemangiomas compromising Mr. Bucklew's airway, I also observed that Mr. Bucklew has residual scarring over the front of his throat caused by the past tracheostomy procedure. Mr. Bucklew explained that the scar tissue is tethered to his trachea in a way that makes it difficult to breathe and swallow. This scar tissue contributes to the obstruction of Mr. Bucklew's airway and increases the turbulence of the air flow through Mr. Bucklew's airway.

5. I also observed that Mr. Bucklew had residual loss of feeling in the right side of his face, causing him to be unable to completely close his right eye.[2]

[2] Dr. Antognini asserts, without having examined Mr. Bucklew, that Mr. Bucklew definitively has not suffered a stroke as a result of his condition. He bases his assertion on the fact that Mr. Bucklew "has recently been observed to

6. I also observed during my examination that Mr. Bucklew has very poor veins in both of his arms. Poor venous visualization suggests that establishing intravenous access in the setting of lethal injection will be potentially difficult, prolonged, and painful to Mr. Bucklew.

7. Also during my January 8, 2017 examination of Mr. Bucklew, I asked him to describe his experience during the MRI Procedure on December 19, 2016. He reported experiencing extreme discomfort during the procedure. In order to maintain the integrity of his airway while lying flat, Mr. Bucklew was forced to consciously alter his breathing pattern, and swallow repeatedly to keep his uvula from settling and completely obstructing his airway, in order to avoid choking.

8. Furthermore, as noted in my October 13, 2015 report, the tissue of Mr. Bucklew's airway has become increasingly fragile over time. In fact, Mr. Bucklew's airway is now so fragile that simply touching it causes the tissue to bleed. As most recently reported by Mr. Bucklew on January 8, 2017, the tissue bleeds so easily that it even bleeds while he is sleeping.

9. My finding that the tissue of Mr. Bucklew's airway is extremely fragile is not inconsistent with my suggestion that Mr. Bucklew undergo a clinical examination that would call for a bronchoscopy or use of a Glidescope. [Decl. Antognini, para. 17]. These procedures are intended to be minimally invasive, and a skillful physician would endeavor to insert the tube with an attached camera carefully into the airway without touching the fragile tissue. However, given Mr. Bucklew's present condition and its progressive nature, as of this date it is my professional medical opinion that Mr. Bucklew's airway is so compromised, and the tissue so fragile, that even the undertaking of a minimally invasive evaluation of his airway would pose very high likelihood of airway bleeding and subsequent loss of the airway that could be fatal.

10. As already described, Mr. Bucklew's condition is progressive. As of April 2012, Mr. Bucklew's medical records indicate that his condition did not appear to place him at risk of life-threatening hemorrhage [PC2257]. My examination of Mr. Bucklew on January 8, 2017, as well as my review of the recent MRI and CT imaging report forms the basis for my conclusion that at the present time, Mr. Bucklew is at risk of life-threatening hemorrhage, particularly under the conditions imposed by Missouri's Execution Procedure.

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speak normally and walk without difficulty." In my professional medical opinion, Dr. Antognini's assertion is based upon insufficient medical evidence. The residual effects of a stroke are not limited to speech impairment or decreased ability to walk, and the absence of these residual effects is not definitive proof that an individual has not suffered a stroke. Other symptoms, such as Mr. Bucklew's inability to fully control the muscles of the right side of his face, can be indicative of stroke.

C. December 19, 2016 Imaging and Report

1. The report generated in connection with the MRI imaging conducted on December 19, 2016, confirms my findings that Mr. Bucklew has a large hemangioma impacting his hard and soft palate, lip, nose, uvula, and throat. Specifically, the report describes the relevant portions of the hemangioma as continuing to impact his airway to a significant degree. The hemangioma is reported as smaller by 1/15th of an inch in a region that was not directly within the airway. This difference is without significance and will have no impact in lessening the serious risk to Mr. Bucklew in the setting of his planned execution as outlined above.

2. As already described, Mr. Bucklew's condition is progressive and his airway continues to be compromised. This finding is confirmed both by recent imaging studies and my own personal examination and evaluation of Mr. Bucklew on two separate occasions.

VI. CONCLUSION AND OPINIONS

A. It is my professional opinion that Mr. Bucklew suffers from a severe and life-threatening form of cavernous hemangioma. Given the nature of Mr. Bucklew's condition, it is my medical opinion that the vascular tumors that obstruct Mr. Bucklew's airway will present a permanent threat to his breathing and that life threatening choking episodes will occur on an ongoing basis. When these choking episodes occur, they will be associated with hemorrhaging to a varying degree that will be easily visible by any observer.

B. Mr. Bucklew's particular medical condition places him at almost certain risk for excruciatingly painful choking complications, including visible hemorrhaging, if he is subjected to execution by means of lethal injection.

C. Mr. Bucklew's airway is compromised such that his breathing is labored, and choking and bleeding occur regularly, even under the least stressful circumstances and when Mr. Bucklew is fully alert and capable of taking corrective measures to prevent suffocation.

D. While it is true that Mr. Bucklew is able to go to sleep after taking certain precautionary measures—including positioning himself to maintain a certain head elevation—without asphyxiating, it is not accurate to compare the experience of sleep with the unconsciousness brought on by sedation. When a person begins to choke while sleeping, as often happens to Mr. Bucklew, he is able to wake up and take remedial measures to alleviate the feeling of choking and return to a normal pattern of breathing. When unconsciousness, or reduced consciousness, is brought on by sedation, an individual is incapable of becoming fully alert and ambulatory and is therefore unable to alleviate the feelings of "air hunger" and choking.

E. The Execution Procedure calls for a minimum of three separate injections, to be administered by "non-medical" personnel. As noted above, Mr. Bucklew is

observed to have very poor veins in both of his arms. Mr. Bucklew's veins are so poor that even a qualified and experienced medical professional would have difficulty finding a vein of the proper and necessary quality for large volume intravenous injection as required in the Missouri lethal injection protocol. In these instances, it is frequently necessary to make more than one attempt to place the needle in a viable vein. However, a medical professional will typically start by trying to place the needle in the best available vein. Each subsequent attempt is even less likely to result in the needle being inserted into a suitable vein, because each successive vein will necessarily appear less viable than the one before. The consequences of placing a needle in an inadequate vein can be catastrophic, and in patients with veins as poor as Mr. Bucklew's, it is not uncommon for a vein to "blow" once the fluid begins flowing through the needle.

F. The risk of a vein blowing is even greater where, as here, the chemical being injected is a very strong "base." Certain chemicals can be characterized as either basic or acidic. Strong bases, just like strong acids, are extremely corrosive. The extremely corrosive properties of the Pentobarbital solution called for in the Execution Procedure make it highly likely that Mr. Bucklew's vein would blow during the injection process.

G. The adequacy of Mr. Bucklew's veins is related to the concerns with respect to his airway. Mr. Bucklew is extremely likely to experience an incremental increase in stress with each unsuccessful attempt to find a vein. A blown vein would also greatly increase Mr. Bucklew's stress. As previously explained, the lethal injection procedure itself is naturally a stressful experience. In an individual with Mr. Bucklew's extremely atypical airway, this increase in stress will manifest as increased difficulty breathing because stress typically causes an individual to breathe harder and faster. The increased velocity of air moving through Mr. Bucklew's airway will result in more turbulent airflow, which Mr. Bucklew will experience as an inability to breathe. Therefore, even prior to receiving the lethal injection, Mr. Bucklew is highly likely to experience greatly increased pain and discomfort and a feeling of "air hunger" greater than that which he experiences in the ordinary course of his day. And contrary to his ordinary experience, Mr. Bucklew will not be able to take remedial measures to normalize his breathing.

H. A second factor that is likely to increase the turbulence of Mr. Bucklew's airflow is the fact that the procedure for execution calls for Mr. Bucklew to lie flat during the execution process. However, when forced to lie completely flat, the aperture of Mr. Bucklew's airway is further reduced because of the location of the hemangiomas that necessarily shift so that they further obstruct Mr. Bucklew's airway when he lies flat. Thus, in addition to a greatly increased velocity of flow of air through his airway, the aperture of Mr. Bucklew's airway will significantly decrease. Mr. Bucklew will experience this combination as a painful inability to breathe normally, even as compared to his usual labored breathing.

I. In addition to the above, the Execution Procedure calls for the injection of 5g of pentobarbital, contained in two separate syringes, thereby requiring two separate

injections which will either be inserted into two separate veins, or through a single vein. The pentobarbital is likely to have the effect of impairing Mr. Bucklew's ability to maintain the integrity of his own airway, particularly given the aforementioned factors that will operate to make Mr. Bucklew's breathing extremely labored. Mr. Bucklew will likely not be fully alert or capable of altering his breathing to accommodate his compromised airway as he does while he is fully alert. Unlike when he is asleep naturally, he will not be able to shift position or wake up fully in order to correct his breathing.

J. I strongly disagree with Dr. Antognini's repeated claim that the pentobarbital injection would result in "rapid unconsciousness" and therefore Mr. Bucklew would not experience any suffocating or choking. [Decl. Antognini, ¶ 15]. In my medical opinion, the injection of pentobarbital called for in the Execution Procedure would not result in instantaneous unconsciousness. Rather, Mr. Bucklew would likely experience unconsciousness that sets in progressively as the chemical circulates through his system. It is during this in-between twilight stage that Mr. Bucklew is likely to experience prolonged feelings of suffocation and excruciating pain. This opinion finds support in the Execution Procedure that explicitly allows for the possibility that five minutes after receiving the injection, death may not have occurred and a second series of injections may be necessary. In addition, unconsciousness or semi-consciousness does not necessarily negate the feeling of pain; it only prevents the unconscious or semi-conscious individual from verbally manifesting that pain.

K. Any length of time in which an individual is experiencing choking and suffocation, without the ability to take a breath, is painful. Even if death is achieved after the passage of five minutes, five minutes is an excruciatingly long period of time for the individual to experience feelings of choking or suffocation. The passage of seconds and minutes is medically significant, particularly in Mr. Bucklew's case.

L. When Mr. Bucklew begins to experience the increased velocity of air through his airway coupled with the decreased aperture of his compromised airway, further exacerbated by pentobarbital's progressive effect on his mental and physical state, Mr. Bucklew will naturally struggle to take a breathe. This struggle will likely manifest as convulsive movements regardless of whether Mr. Bucklew is fully conscious. The harder Mr. Bucklew tries to take a breath, the more turbulent the flow of air through his airway will become and Mr. Bucklew will experience this as suffocation.

M. In addition, the increased violence with which Mr. Bucklew attempts to breathe and resultant convulsive movements, combined with the extremely fragile nature of the tissue of his airway, and the increase in blood pressure resulting from increased stress, are highly likely to result in hemorrhaging from the hemangioma in his throat, mouth, and nasal cavity.

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N. Mr. Bucklew's airway would be further obstructed by the blood from the hemorrhaging, causing Mr. Bucklew to choke and cough on his own blood during the execution proceeding.

O. In conclusion, it is my professional medical opinion that Mr. Bucklew, as a result of his particular medical condition and the atypical anatomy of his airway, will suffer excruciating pain and prolonged suffocation if he is executed by lethal injection.

"I declare under penalty of perjury that the foregoing is true and correct."

Executed on January 16, 2017

Joel B. Zivot, M.D.

EXHIBIT A

EMORY UNIVERSITY SCHOOL OF MEDICINE
CURRICULUM VITAE

JOEL B. ZIVOT, MD, FRCP(C)

Revised: January, 2017

I. Contact Information

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II. Citizenship: American, Canadian

III. Current Titles and Affiliations:

A. Academic Appointments:

1. Primary Appointments:

a. Associate Professor, Department of Anesthesiology

b. Joint and Secondary Appointments:
Associate Professor, Department of Surgery

2. Other academic appointments:

a. Adjunct Professor, Emory School of Law

B. Other Administrative Appointments:

1. Medical Advisor, Southern Center for Human Rights, Atlanta, Georgia

IV. Previous Academic and Professional Appointments:

A. Fellowship Director, Critical Care Medicine, Department of Anesthesiology, Emory University School of Medicine, Jan 2013-January 2016

B. Medical Director, 4A/5A, EUH (February 2013 –June 2015)

C. Medical Director, IIS, EUHM (June 2010-February 2013)

D. Associate Professor, Department of Anesthesiology, University of Manitoba, Winnipeg, Manitoba, Canada, 2007-2010

E. Member, Academic Promotions Committee, University of Manitoba, Faculty of Medicine, Winnipeg, Manitoba, Canada, 2009

F. Member of selection committee, Physician Assistant Program, The University of Manitoba, Winnipeg, Manitoba, Canada, 2008

G. Member, Accreditation Review Committee-Anesthesiologist Assistants, Commission on Accreditation of Allied Health Education Programs (ARC-AA), 2008

H. Assistant Professor, Department of Anesthesiology and Critical Care Medicine, George Washington University Hospital, District of Columbia, USA, 2005-2007

I. Program Medical Director, Master of Science in Anesthesiology, Case Western Reserve University School of Graduate Studies, Cleveland, Ohio, USA, 2000-2005

J. Assistant Professor of Anesthesia, Surgery, and Intensive Care, University Hospitals of Cleveland, Case Western Reserve University School of Medicine, Cleveland, Ohio, USA, 1998-2005

K. Director Critical Care Medicine Fellowship, Department of Anesthesiology, University of Michigan Medical Center, Ann Arbor, Michigan, USA, 1996-1998

L. Assistant Professor, Department of Anesthesiology and Critical Care Medicine, University of Michigan Medical Center, 1995-1998

V. Previous Administrative and/or Clinical Appointments:

A. Medical Director, Cardio-thoracic ICU, Intensive Care Cardiac Sciences Program, Winnipeg Regional Health Authority, Winnipeg, Manitoba, Canada, 2007-2010

B. Medical Director, CTICU, George Washington University Hospital, Washington, DC, 2005-2007

C. Co-Medical Director, Surgical Intensive Care Unit, University Hospitals of Cleveland, Case Western Reserve University, Cleveland, Ohio, USA, 2002-2005

D. Director, Post Anesthesia Care Unit, Department of Anesthesiology, University of Michigan Medical Center, Ann Arbor, MI, 1995-1998

VI. Licensures / Boards:

A. Licentiate, Medical Council of Canada, 1989-present

B. *License, Controlled Substance, Drug Enforcement Agency, 1995-present*

C. *License, Michigan State Medical Board, 1995-2000*

D. *License, Ohio State Medical Board, 1998-2012*

E. *Fellow, American College of Chest Physicians, 2000-2010*

F. *License, District of Columbia Medical Board, 2005-present*

G. *License, College of Physicians and Surgeons of Manitoba, 2007-2011*

H. *License, Georgia Composite Medical Board, 2010-present*

VII. Specialty Boards:

A. Fellow, Royal College of Physicians of Canada, 1993-present

B. *Diplomat, Anesthesiology, American Board of Anesthesiology, 1995-present*

C. *Diplomat, Critical Care Medicine, American Board of Anesthesiology, 1995-present*

D. *Fellow, American College of Chest Physicians, 2000-2010*

E. *Testamur in basic peri-operative trans-esophageal echocardiography, National Board of Echocardiography, 2010-present*

VIII. Education:

A. University of Manitoba, Winnipeg, Manitoba, Canada, 1980-1983

B. University of Toronto, Toronto, Ontario, Canada, 1984

C. Doctor of Medicine, University of Manitoba, Winnipeg, Manitoba, Canada, 1988

IX. Postgraduate Training:

A. Rotating Internship, Mount Sinai Hospital, University of Toronto, Department of Post Graduate Medical Education, Toronto, Canada, 1988-1989

B. Residency, Anesthesiology, University of Toronto, Department of Anesthesiology, Dr. David McKnight, Toronto, Canada, 1989-1993

C. Residency, Anesthesiology, Cleveland Clinic Foundation, Department of Anesthesiology, Dr. Armin Schubert, Cleveland, Ohio, United States, 1993-1994

D. Fellowship, Critical Care Medicine, Cleveland Clinic Foundation, Department of Anesthesiology, Dr. Marc Popovich, Cleveland, Ohio, United States, 1994-1995

E. Masters of Bioethics, Emory Center for Ethics, Dr. Toby Schonfeld, program director, 2012-present, expected graduation spring 2017

X. Committee Memberships:

A. National and International:

1. American Society of Anesthesiology, Committee on Ethics, 2011-present

2. American Society of Anesthesiology, Care Team Committee, 2007-2009

3. Society of Critical Care Medicine, Committee on Ethics, 2011-present

4. Society of Critical Care Medicine, Patient and Family Satisfaction Committee, 2013-present

5. Society of Cardiovascular Anesthesiology, Committee on Ethics, 2012-2013

6. Society of Critical Care Anesthesiologists, Graduate Education Committee 2013-present

B. Regional and State:

1. President, Cleveland Society of Anesthesiology, 2001-2002

2. President Elect, DC Society of Anesthesiology, 2006-2007

C. Institutional:

1. EUHM Committee on Ethics, 2011-present

2. EUHM Pharmacy and Therapeutics Committee 2011-present

3. EUHM Executive Critical Care Committee 2010-present

4. EUHM CAUTI and CLABSI prevention committee 2010-present

5. EUH Executive Pharmacy Committee 2012-present

6. EUH Antibiotic Utilization Subcommittee 2012-present

7. EUH Resuscitation Committee 2013-present

8. EUH Difficult Airway ad-hoc group 2013-2014

9. EUH Executive Critical Care Committee 2013-present

10. Department of Anesthesiology Residency Review Committee2013-present

11. EUH/EUHM CTS Quality Committee, 2012-present

XI. Peer Review Activities:

A. Manuscripts:

1. Canadian Journal of Anesthesiology, (manuscript reviewer), 2013

2. Critical Care Medicine, (manuscript reviewer), 2014-2015

3. Mayo Clinic Proceedings, (manuscript reviewer), 2015-

B. Grant reviewer

1. Reviewed grant applications for The Emory Georgia Tech Healthcare Innovation Program (HIP), (HIP-ACTSI-GSU) Seed grant

C. Conference Abstracts:

1. National and International:

- *American Society of Anesthesiology, 2012*
- *Abstract Review Committee and poster session moderator*

2. Regional:

- *Midwestern Anesthesia Resident Conference, 2001-2003 Abstract reviewer*

XII. Consultantships:

A. Merck Pharmaceuticals, physician advisory board, 2005-2007

B. Consultant for Wireless EKG Monitor, 2004-2005

C. Masimo Corporation, product design and physician advisory board, 2013-present

D. Doximity, physician advisory committee, 2014-present

XIII. Honors and Awards:

A. Robert B. Sweet Clinical Instructor of the Year, University of Michigan, Department of Anesthesiology, 1997

B. Outstanding Clinical Instructor of the Year, Case Western Reserve University, Master of Science in Anesthesiology Program, 1999

C. Clinical Instructor of the Year. University Hospitals of Cleveland. Department of Anesthesiology, 2000

D. Outstanding Clinical Instructor of the Year, Case Western Reserve University, Master of Science in Anesthesiology Program, 2001

E. *Meritorious Service Award. American Academy of Anesthesiologist Assistants, 2003*

This award was given to me for academic work as the medical director of the Masters in Science of Anesthesiology at Case Western Reserve University and also advocacy for scope of practice, and committee work to improve the relationship between the American Society of Anesthesiology and American Academy of Anesthesiologist Assistants.

F. Quality and Patient Safety Award, University Health Systems Consortium, 2002

This award was given by University Health System Consortium for various quality benchmark projects when I was the co-medical director of the Cardio-thoracic Intensive Care Unit at University Hospitals of Cleveland.

G Distinguished service by a Physician Award, American Academy of Anesthesiologist Assistants, 2005

This award was given to me for work with the American Academy of Anesthesiology Assistants annual meetings where I served as a speaker on multiple locations and also developed and hosted an annual Jeopardy game competition between all of the Masters of Science in Anesthesiology schools around the country.

H. District of Columbia Annual Patient Safety Award, District of Columbia Department of Health, 2006

This award was given by the District of Columbia Department of Health for quality improvement work done when I was the medical director of the cardio-thoracic intensive care unit at George Washington University Hospital I developed several collaborative quality projects between cardio-thoracic surgery and critical care medicine.

I. Presidential Citation, Society of Critical Care Medicine, 2013

This award was given to me for work done within the Society of Critical Care Medicine that included writing a book chapter, service on 2 society committees, and moderating an online debate about the topic of end of life decisions in patients with implanted mechanical cardiac support devices.

XIV. Society Memberships:

A. American Academy of Anesthesiologist Assistant, 2005-present

B. American College of Chest Physicians, 2000-2007

C. American Medical Association, 1995-2000

D. American Medical Association (reactivated), 2010-present

E. Society of Critical Care Anesthesiologists, 1995-present

F. American Society of Anesthesiologists, 1993-present

G. Canadian Anesthesiologist Society, 2007-present

H. District of Columbia Society of Anesthesiologists, 2006-2007

I. International Anesthesia Research Society, 1996-2000

J. International Extra-Corporeal Life Support Organization, 1997-2005

K. Ohio Society of Anesthesiologists, 1993-2005

L. Society of Critical Care Medicine, 1995-present

M. Manitoba Medical Society, 2007-2010

N. Canadian Medical Association, 2008-2012

O. Georgia Society of Anesthesiologists, 2010-present

P. Society of Cardiovascular Anesthesiologists, 2010-present

Q. Society of Academic Anesthesiology Associations, 2013-present

R. Medical Association of Georgia, 2016-

XV. Organization of National or International Conferences:

"On the Ethics of Drug Shortages" June 2012, Jointly with the American Society of Anesthesiology and the Emory Center for Ethics

Administrative Positions: Director, Meeting Planning Committee

Sessions as chair: Overall conference chair

XVI. Research Focus:

Medicine, moral theory, rhetoric, semantics, end of life, physicians and vulnerable populations. Physician participation in lethal injection. Ethogram to study conflict in the operating room. Human factors in critical care decision-making and biological variability. Developed economic model explaining the national generic drug shortages. Studied Propofol wastage in the operating room.

XVII. Grant Support:

A. Active Support:

1. Other: Team Based Science (TBS) grant from the Department of Anesthesiology for Evaluation of conflict in the operating room, $20,000.00

2. The Emory Georgia Tech Healthcare Innovation Program (HIP), (HIP-ACTSI-GSU) Seed grant, $25,000.00, for "Managing Conflict and Error in the Operating Room". Awarded July 2014.

B. Previous Support:

1. $20,000.00 from the American Society of Anesthesiology to plan the meeting "On the Ethics of Drug Shortages". June 2012

XVIII. Clinical Service Contributions

A. Medical director of 11S ICU (EUHM) and 4A/5A ICU (EUH)

I created and chaired a joint protocol development group with Critical Care Medicine, Surgery, Nursing, and Respiratory Therapy with the purpose of improving quality metrics in critical care medicine. This group accomplished several things including a blood conservation strategy for post-operative cardiac surgery patients, intra-aortic balloon pump removal, DVT and GI prophylaxis and the beginning of an atrial fibrillation management protocol. I also wrote and helped implement a rapid extubation protocol for EUH and EUHM cardiac surgery patients.

B. Hospital Committee involvement

I was involved in several Emory committees that addressed a broad range of issues, (see 12 c)

GME involvement, Fellowship Director, Critical Care Medicine, Department of Anesthesiology

I am the fellowship director for critical care medicine. I developed the first joint Anesthesiology-Emergency Medicine critical care medicine fellowship at Emory and I am expanding the number of fellows who will also be trained to assist in providing overnight coverage for airway management at EUH. Overnight airway

coverage has been a project of the EUH emergency airway committee on which I am a member. My ongoing conflict project has been embraced by Emory Healthcare Office of Quality and they are also contributing to the funding and management of the project on an ongoing basis.

XIX. Community Outreach:

A. Community Service

1. International:

St. Petersburg, Russia, 2002, 2004: Home visits to community members who were unable to travel to see a physician

2. Regional:

Hurricane Katrina Medical Response Team, 2005
Emory 500 Atlanta Motor Speedway Health Tent Volunteer, 2010

XX. Media

A. Op-Ed:

1. "Baby's status as human is on trial" Op-Ed, Feb. 19, 2010, Winnipeg Free Press, 2010

2. "Why I am for a moratorium on lethal injections" Op-Ed, Dec 15, 2013, USA Today, 2013

3. "The Slippery Slope from Medicine to Lethal Injection" Op-Ed, May 2, 2014 TIME, 2014

B. Interviews:

1. Anesthesiology News, 2002

-Anesthesiologist Assistants

2. The Medical Post, 2009

-Waiting for Cardiac Surgery

3. The Health Report, CJOB 68 AM, Winnipeg, Canada, 2010

-Cardiac Critical Care
-End of Life in the ICU
-VIP syndrome

4. Inside the Black Box, WREK 91.1 FM, Atlanta, Georgia, 2011

-Biting the Bullet: The Technology of Anesthesia

5 National Public Radio WABE 90.1 FM Atlanta, Georgia, 2011

-Physicians and the death penalty
-Drug shortages

6. Georgia Public Broadcasting, Atlanta GA, 2012

-Drug shortages reaching critical levels

7. Medpage Today, 2013

-No Advantage for Fresh Blood in ICU Transfusions

-Meningitis Outbreak: Suspicion needed for nausea complaints
-Drug Shortages spark use of compounders

8. Medscape Medical News, 2013

-GPOs to Blame for Drug Shortages, Says Physicians Group

9. Medpage Today, 2014

-Cruel and Unusual Punishment
-Lethal Injection: a cruel, painful, terrifying execution

10. Miami Herald, 2014

-Doctor speaks out on use of untested drugs in capital punishment

11. The New York Times, 2014

-Timeline describes frantic scene at Oklahoma execution

12. The Washington Post, 2014

-Florida's Gruesome Execution Theater
-Another execution gone awry. Now what?

13. CNN with Sanjay Gupta, 2014

-Dr. Zivot: Lethal injection not humane

14. Amicus on Slate with Dahlia Lithwick, 2015

-Botched protocols

15. Huffington Post, 2015

-Oklahoma wants to reinstate the gas chamber and experts say it's a bad idea

16. Time, 2015

-The harsh reality of execution by firing squad

XXI. Formal Teaching:

A. Medical Student Teaching:

1. Discovery Project: "Propofol wastage in the ICU" Medical student Mina Tran, 2012-2013, contact hours 4 hrs/week

2. Serve as teacher and mentor for medical students in anesthesiology and critical care medicine. 2010-present, contact hours: 3 hrs/week

3. Instructor for Fundamental Critical Care Support (FCCS) training course for medical students, 2012-present, contact hours: 1 hr/week

4. Forge Medical Student Innovation Group, Mentor, contact hours: 0.5 hrs/week

B. Graduate Programs:

1. Training Programs:

Instructor in the Masters of Science in Anesthesiology program. I developed the first critical care medicine rotation for all of the students and also a series of didactic lectures on the topic of critical care medicine the included "Critical Care Medicine", "Heart Failure", and "Acid-Base Disorders"

2. School of Law:

*Co-chief instructor of **LAW 819-002, "Law, Medicine and Human Rights"**, a 2 credit hour seminar taught in the fall 2016 semester in the Emory School of Law*

3. Residency Programs:

Served as instructor for residents in anesthesiology, emergency medicine, and surgery in the area of critical care medicine. I also sit on the residency review committee for the Department of Anesthesiology. Lecture topics "Septic shock", "Thyroid disease in critical care", "Mechanical heart support", "Pulmonary artery catheters" "Heuristics and biases in clinical reasoning", "delirium and agitation in critical illness". "biological variability"

C. Other Categories

I give regular lectures on a variety of critical care topics for respiratory therapy including "capnography" and "paralytics". I lecture students in the Emory critical care NP/PA program and also regular critical care lectures to the NP/PA practitioners in critical care. I teach those students how to read chest X-rays. I am invited to lecture in the Emory School of Law on the topic "Physician Assisted Suicide".

Emory Tibet Science Initiative:

I taught biology to Buddhist monks at Drepung Loseling Monastery in Southern India in June 2015. This initiative is a result of an invitation from His Holiness, The Dalai Lama, to bring science education to the education of the monks and represents the first time in 700 years that the curriculum has changed. I spent 2 weeks at the monastery teaching for 6 hours per day including microscopy lab teaching. I worked with a series of translators.

XXII. Supervisory Teaching:

A. Residency Program:

Fellowship director, Critical Care Medicine, Department of Anesthesiology 2013-present. I am chiefly responsible for the education and training of the critical care fellows in the Department of Anesthesiology. In addition to a multitude of critical care topics, I assist the fellows in abstract writing for a national critical care meeting, grand rounds for the Department of Anesthesiology and a quality improvement project for Graduate Medical Education Day that occurs annually in June.

B. Other:

I completed a summer internship at the Southern Center for Human Rights and also teach law students on the topic of lethal injection.

XXIII. Lectureships, Seminar Invitations, and Visiting Professorships:

A. "The Case of Samuel Golubchuk: Lessons about end-of-life decision-making?" A debate between Doctors Joel Zivot and Adrian Fine Wednesday, 18 March, 2009, 12h30-13h30. The Centre for Professional and Applied Ethics, The University of Manitoba, Winnipeg, Manitoba

B. "Cardiac output after the Pulmonary Artery Catheter" American Academy of Anesthesiologist Assistants Annual Meeting. Clearwater, Florida, April 2009

C. "End of Life in the ICU", Canadian Hospice Palliative Care Conference Annual Meeting, Winnipeg, Manitoba, Canada. October 2009

D. "Reductions in wait times for cardiac surgery may be harmful", poster presentation, Canadian Cardiovascular Society Annual Meeting, Edmonton, Alberta, Canada, October 2009

E. "Biological Variability" American Society of Anesthesiology, 2009-(I formed a panel to discuss biological variability. My panel consisted of an anesthesiologist, a mathematician, and a physicist.)

F. "End of life in the ICU: When the patient and doctor disagree…" Province wide health care ethics grand rounds, St. Boniface Research Centre, Winnipeg, Manitoba, Canada. January 2010

G. "Mostly dead is slightly alive, the problem with the dying process" Center for Ethics, Emory University, 2011.

H. "Anesthesiology Jeopardy!" American Academy of Anesthesiologist Assistants Annual Meeting, 2006, 2007, 2008, 2009, 2010, 2011

I. "Queuing Theory: Applications for Anesthesiology" American Academy of Anesthesiologist Assistants Annual Meeting, Destin, Florida, 2011

J. "Cardiac Anesthesia: Mostly we have it wrong" American Academy of Anesthesiologist Assistants Annual Meeting, Destin, Florida, 2011

K. "End of life in the ICU: When the patient and doctor disagree" American Academy of Anesthesiologist Assistants Annual Meeting, Destin, Florida, 2011

L. "Sedating the difficult patient" 5th Annual Southeastern Critical Care Summit. Emory University, Atlanta, GA, March 2012

M. "End of Life Care" IMPACT 2012 American Academy of Physician Assistants Annual Meeting, Toronto, Canada, June 2012

N. "Biosimilars, where do we stand?" Georgia Bio and the Georgia Association of Healthcare Executives. September 2012, Atlanta, Georgia

O. "Drug Shortages" Visiting Professor, Rutgers Business School, Newark, New Jersey, November 2012.

P. "Deactivating a permanent cardiac device is not physician assisted death", Pro-con debate Webinar, Society of Critical Care Medicine, November 2012.

Q. "Drug shortages: The invisible hand of the Market" New Horizons in Anesthesiology, Vail, Colorado, February 2013

R. "Hey Anesthesia is a compliment, not an insult: the case for protocols" New Horizons in Anesthesiology, Vail, Colorado, February 2013

S. "Pro/Con: Death Panels in End of Life Care" New Horizons in Anesthesiology, Vail, Colorado, February 2013

T. "Hockey Violence and Killer Apes: Conflict Management in the Operating Room" New Horizons in Anesthesiology, Vail, Colorado, February 2013

U. "Drug Shortages, a failed market" American Society of Anesthesiology Legislative Conference Annual Meeting, April 2013, Washington, DC

V. "Lethal injection in the death penalty", Georgia Law Society and the Southern Center for Human Rights, Atlanta, Georgia, July 2014

W. "Identifying and managing futile care in the ICU", 10th Annual South Easter Critical care Summit, May 2016, Atlanta, Georgia

X. "Capital Punishment and Lethal Injection", Georgia State School of Law, Atlanta, Georgia, September 2016

XXIV. Invitations to National or International Conferences:

A. University of Richmond Law Review, Allen Chair Symposium, 2014, *"The Death Penalty in the United States."*

B. Yale Law School, March 2015, *"Lethal injection."*

C. The Fordham Law Review, Fordham Law School, February 201,6 *"Criminal Behavior and the Brain: When Law and Neuroscience Collide."*

D. American College of Correctional Physicians

Fall Educational Conference
October 2016
Las Vegas, Nevada
"Physician participation in executions: A discussion of the Ethical Challenges and the Pros and Cons, a pro-con debate between Dr. Carlo Muso and Dr. Joel Zivot

E. "Prescribing Price: The Ethics, Science, and Business of Drug Development and Pricing"

Panelist
Emory Conference Center, November 2016
Atlanta, Georgia
Emory Center for Ethics

F. "The First International Emory Tibet Symposium: Bridging Buddhism & Science

Drepung Loseling Monastery
Karnataka State, India"
Panelist: What is life and what are its origins?

XXV. Bibliography:

A. Published and Accepted Research Articles (clinical, basic science, other) in Refereed Journals

1. Perera ER, Vidic DM, **Zivot J**. "Carinal resection with two high frequency jet ventilation delivery systems". Canadian Journal of Anesthesia. Jan 1993: 40(1):59-63. PMID: 8425245

2. **Zivot JB**, Hoffman WD. "Pathological effects of endotoxin". New Horizons. May 1995; 3(2):267-75. PMID:7583168

3. Popovich MJ, Lockrem JD, **Zivot JB**. "Nasal bridle revisited: an improvement in the technique to prevent unintentional removal of small-bore naso-enteric feeding tubes". Critical Care Medicine. March 1996; 24(3):429-31. PMID: 8625630

4. Kumar K, Zarychanski R, Bell DD, Manji R, **Zivot J**, Menkis AH, Arora RC; Cardiovascular Health Research in Manitoba Investigator Group. "Impact of 24-hour in-house intensivist on a dedicated cardiac surgery intensive care unit". *Ann Thorac Surg*. 2009 Oct;88(4):1153-61.doi: 10.1016/j.athoracsur. 2009.04.070

5. ***Zivot JB**. "The Case of Samuel Golubchuk", AJOB Volume 10, Issue 3 March 2010, pages 56 - 57 doi: 10.1080/15265160903681890.*

6. AbdulRazaq A. H. Sokoro, PhD., **Joel B. Zivot**, , MD, FRCPC, Robert E. Ariano, PharmD, FCCM "Neuroleptic malignant syndrome versus Serotonin syndrome: the search for a diagnostic tool?" Ann Pharmacother. 2011 Sep;45(9):e50.doi: 10.1345/aph. 1P787. Epub 2011 Aug 30.

7. When patient and doctor disagree. **Zivot JB**, CMAJ 2012,Jan 10;184(1):76-6. doi: 10.1503/cmaj. 112-2008

8. **Zivot JB**, "Anesthesia does not reduce suffering at the end of life", Crit Care Med. 2012 Jul; 40(7):2268-9. doi: 10.1097/CCM.0b013e31824fc12b.

9. **Zivot JB**, "The absence of cruelty is not the presence of humanness: physicians and the death penalty in the United States". Philos Ethics Humanit Med. 2012 Dec 3;7(1):13. doi: 10.1186/1747-5341-7-13.

10. Mazzeffi, M, **Zivot J**, Buchman T, Halkos M, "In bospital mortality after cardiac surgery: patient characteristics, timing, and association with postoperative length of intensive care unit and hospital stay". Ann Thorac Surg. 2014 Apr;97(4):1220-5. doi: 10.1010/j.athoracsur.2013. 10.040. Epub 2013 Dec 21.

11. **Zivot JB**, "The withdrawal of treatment is still treatment". Can J Anesth 2014; Oct;61(10):895-8

12. **Zivot J**, "Lethal injection: the states medicalize execution" 49 U. Rich. L. Rev. 711 (2015)

13. **Zivot J**, "Elder care in the ICU: Spin bravely?" Crit Care Med 2015 July;43(7):1526-7\

14. Jones LK, Jennings BM, Goetz RM, Haythorn KW, **Zivot JB**, de Waal FB "An Ethogram to Quantify Operating Room Behavior" Ann Behav Med. 2016 Jan 26. [Epub ahead of print]

15. ***Zivot J, Arenson K, "Lessons learned from physician participation in lethal injection: Is Carter v. Canada a death knell for medical self-regulation?" Can J Anaesth 2016 March;63(3):246-251***

16. **Zivot JB**, "Elderly patients in the ICU: Worth it, or not?" Crit Care Med 2016 April;44(4):842-3

17. Moll V, Ward CT, **Zivot JB**, "Antipsychotic-Induced Neuroleptic Malignant Syndrome after Cardiac Surgery" AA Case Rep. 2016 July 1; 7 (1); 5-8

18. **Zivot J**, "Too Sick to be Executed: Shocking Punishment and the Brain" November 2016 Vol 85, pp 697-703, Fordham Law Review

B. Examination Activities:

1. Committee Member, 2005, National Anesthesiologist Assistant Certification

2. Examination Development Committee

3. Question writer, 2005, Critical Care Medicine, National Board of Medical Examiners

4. Question reviewer, 2015, American Board of Anesthesiology-Maintenance of Certification in Anesthesiology (MOCA), Critical Care Medicine

C. Book Chapters:

1. Bojan Paunovic MD, FRCPC[1], Rizwan Manji MD, PhD, FRCSC[2], Rakesh Arora MD, PhD, FRCSC[2], Johan Strumpher MD, FRCPC[3], Rohit Singhal MD, FRCSC[2], **Joel Zivot MD, FRCPC**[4], and Eric Jacobsohn MBChB, MHPE, FRCPC[5] **"Diagnosis and Management of Sepsis and Septic Shock in the Cardiac Surgical Patient". Society of Cardiovascular Anesthesiology Monograph, March 2010**

2. **Zivot, JB**, "What Are Advance Directives?" Critical Care Ethics: A Practice Guide, Third Ed. Copyright 2014 Society of Critical Care Medicine.

D. Other Publications:

1. **Zivot J**, Hoffman W, Lockrem J, Esfandiari S, Bedocs N, Vignali C, Popovich M. **"Changes in gastric intramucosal pH are not predicted by therapeutic changes in conventional hemodynamic variables for septic surgical patients". Critical Care Medicine. 23(1) Supplement A:107, Jan 1995**

2. Webster J, Thomson V, **Zivot J.** "Excessive endotracheal tube cuff pressures are common but are not clinically significant". Anesthesiology 87(3 Suppl) A984, 1997

3 Bloch, MG, **Zivot JB**. "Successful transplantation of liver and kidney allografts from a donor maintained on veno-arterial extracorporeal membrane oxygenation". Anesthesia and Analgesia, 94(25 Supplement) S104, Feb 2002

4. **Zivot J**, Polemenakas A, Aggarwall S, Rowbottom J. "Differential lung capnography after single lung transplant". Critical Care Medicine 30(12) Supplement: A90 December 2002

5 Voltz D, **Zivot J**, "Changes in the Bispectral Index during Deep Hypothermic Circulatory Arrest." Society of Critical Care Medicine Annual Meeting, San Francisco, California, January 2003

6 Ravas R, **Zivot J**, "Blood conservation; Designing a better blood bag", Department of Anesthesiology, University Hospitals of Cleveland, Case Western Reserve University, Cleveland, Ohio, Midwestern Anesthesia Resident Conference (MARC), Chicago, Illinois, March 2003

7. Hacker L, **Zivot J** "Local anesthetic spread for skin infiltration", Department of Anesthesiology, University Hospitals of Cleveland, Case Western Reserve University, Cleveland, Ohio, Midwestern Anesthesia Residents Conference, Chicago, Illinois, March 2003

8. Falk S, **Zivot J**, "Post-operative Sidenafil for pulmonary hypertension following mitral valve repair" 17th Asia Pacific Conference on Diseases of the Chest, Istanbul, Turkey, August 2003

9. Aggarwal S, **Zivot J**, "New onset anterior spinal artery syndrome after lumbar drain removal" Department of Anesthesiology, University Hospitals of Cleveland, Case Western Reserve University, Cleveland, Ohio, Midwestern Anesthesia Residents Conference, Rochester, Minnesota, March 2004

10. Stetz J, **Zivot J**, "Dextromethorphan masquerading as phencyclidine," Department of Anesthesiology, University Hospitals of Cleveland, Case Western Reserve University, Cleveland, Ohio, Midwestern Anesthesia Residents Conference, Rochester, Minnesota, March 2004

11. Petelenz K, **Zivot J**, "Bilateral BIS monitoring in unilateral brain injury", Department of Anesthesiology, University Hospitals of Cleveland, Case Western Reserve University, Cleveland, Ohio, Midwestern Anesthesia Residents Conference, Chicago, Illinois, March 2005

12. Arora RC, Zarychynski R, Bell D, **Zivot J**, Lee J, Kumar K, Zhang L, Menkis A "The Manitoba Model of Post-Operative Cardiac Surgery Intensive Care" The Cardiac Sciences Program, St. Boniface Hospital and the University of Manitoba, Winnipeg, Canada. Toronto Critical Care Meeting, October 2007

13. K Kumar, R Zarychanski, DD Bell, **J Zivot**, J Lee, R Manji, A Menkis, RC Aurora, "The Impact of the Manitoba Model of 24 hour in-house intensivist on a dedicated cardiac surgery ICU" Canadian Cardiovascular Society Annual Meeting, Toronto, Ontario, Canada, October 2008

14. Fergusson DA, Hébert PC, Mazer CD, Fremes S, MacAdams C, Murkin JM, Teoh K, Duke PC, Arellano R, Blajchman MA, Bussières JS, Côté D, Karski J, Martineau R, Robblee JA, Rodger M, Wells G, Clinch J, Pretorius R; BART Investigators. "A comparison of aprotinin and lysine analogues in high-risk cardiac surgery". N Engl J Med. 2008 May 29;358(22):2319-31. Epub 2008 May 14. Erratum in: N Engl J Med. 2010 Sep 23;363(13):1290

15. M Rivet, S Chartrand, G Henry, ICCS Nurses, RC Aurora, DD Bell, A Menkis, **J Zivot**, RA Manji, on the GRACE, GRACE2 Investigators, "Bunk Beds in the ICU - Can Two Cardiac Surgery Patients Occupy One ICU Bed?" Canadian Cardiovascular Society Annual Meeting, Toronto, Ontario, Canada, October 2008

16. RA Manji, E Jacobsohn, D Bell, RK Singal, **J Zivot**, A Menkis " Delirium and bed management in the cardiac surgery ICU" Canadian Cardiovascular Society Annual Meeting, Edmonton, Alberta, Canada, October 2009

17. RA Manji, D Bell, C Shaw, C Moltzan, P Nickerson, AH Menkis, **J Zivot**, E Jacobsohn, Management Suggestions for Cardiac Surgery Patients with a Positive Heparin Induced Thrombocytopenia (HIT) ELISA, Canadian Cardiovascular Society Annual Meeting, Edmonton, Alberta, Canada, October 2009

18. RA Manji, E Jacobsohn, **J Zivot**, H Grocott, Alan Menkis, Prolonged in-hospital wait times does not affect outcomes for urgent coronary artery bypass surgery, Canadian Cardiovascular Society Annual Meeting, Edmonton, Alberta, Canada, October 2009

19. **J Zivot**, RA Manji, E Jacobsohn, H Grocott, A Menkis, Reductions in wait times for cardiac surgery may be harmful, Canadian Cardiovascular Society Annual Meeting, Edmonton, Alberta, Canada, October 2009

20. RA Manji MD PhD FRCSC MBA, E Jacobsohn MBChB FRCPC, H Grocott MD FRCPC, **J Zivot** MD FRCPC, AH Menkis DDS MD FRCSC, Longer in-hospital wait times does not affect outcomes for urgent coronary artery bypass grafting surgery, American Heart Association Annual Meeting, Orlando, Florida, November 2009

21. **Zivot, JB**, "When the patient and the doctor disagree: end of life in the ICU" (poster presentation) American Society of Anesthesiology Annual Meeting, San Diego, California, October 2010

22. Joel Zivot, MD, "A cure in search of a disease, comments on: From an Ethics of Rationing to an Ethics of Waste Avoidance", N Engl J Med. 2012; 366:1949-1951, May 24 2012

23. Mazzeffi, Halkos, **Zivot** "Timing and characterization of post-cardiac surgery in-hospital mortality" Society of Critical Care Annual Meeting Society of Critical Care Annual Meeting, Jan 2013.

24. Neamu, Halkos, **Zivot** "Right Ventricular Laceration During Closed Chest Compression in a Cardiac Surgical Patient" Society of Critical Care Annual Meeting: Jan 2013

Joel B Zivot, MD, FRCP(C)
January 2017

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25. Caridi-Scheible, **Zivot**, Paciullo, Connor "Successful treatment of pulmonary-renal syndrome secondary to p-ANCA vasculitis using ECMO with Argatroban", Society of Critical Care Medicine Annual Meeting, San Francisco, CA, Jan 2014

EXHIBIT B

PRIOR EXPERT TESTIMONY

In the past four years, I have testified as an expert by deposition in the following cases: (1) State of Georgia v. Christopher Calmer; (2) State of Georgia v. Catherine Goins; (3) Anthony Boyd v. Commissioner, Alabama Department of Corrections; (4) Ernest Johnson v. Troy Steele; (5) Joshua Bishop v. GDCP Warden; (6) Brian Keith Terrell v. Homer Bryson, Bruce Chatman, and Other Unknown Employees and Agents, Georgia Department of Corrections; (7) Robert L. Henry v. State of Florida; (8) Marcus Wellons v. Commissioner, Georgia Department of Corrections; (9) Tanya Johnson v. Springhill Hospitals; and (10) In re New England Compounding Pharmacy Inc. Products Liability Litigation. This list is true and correct to the best of my knowledge and recollection.

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EXHIBIT C

Report of MRI Imaging dated December 23, 2016

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510 Kingshighway Boulevard
Saint Louis, Missouri 63110

MIR

MALLINCKRODT
INSTITUTE OF RADIOLOGY
WASHINGTON UNIVERSITY
MEDICAL CENTER

BUCKLEW, RUSSELL
DOB: 06/16/1968
PAT CLASS: Outpatient
MRN: 4280226

This exam was performed at Barnes-Jewish Hospital

Attending Physician: ERNIE-PAUL BARRETTE, M.D.
Requesting Physician: ,
Radiologist(s): FRANZ WIPPOLD, M.D. WEI WANG, M.D.

****FINAL REPORT****

The radiology attending physician has personally reviewed this study, and has reviewed and/or edited this written report and agrees with it.

ACC#	Date	Time	Exam
39993297	Dec 19, 2016	14:39:00	70496 CT Angio Head w/o & w cont
39993329	Dec 19, 2016	14:39:00	70498 CT Angio Neck
39993701	Dec 19, 2016	17:00:00	70543 MRI Orb,Face,Nk, wo&w cont
39993703	Dec 19, 2016	17:00:00	70546 MR Angio Head wo&wi cont
39993730	Dec 19, 2016	17:00:00	70549 MR Angio Neck wo&wi cont

ACC#	Date	Time	Exam
39993297	Dec 19, 2016	14:39:00	70496 CT Angio Head w/o & w cont
39993329	Dec 19, 2016	14:39:00	70498 CT Angio Neck
39993701	Dec 19, 2016	17:00:00	70543 MRI Orb,Face,Nk, wo&w cont
39993703	Dec 19, 2016	17:00:00	70546 MR Angio Head wo&wi cont
39993730	Dec 19, 2016	17:00:00	70549 MR Angio Neck wo&wi cont

EXAMINATION:
1. Computed tomography angiography (CTA) of the neck.

2. Computed tomography angiography (CTA) of the head without and with contrast.

3. Magnetic resonance imaging (MRI) of the face and neck without and with contrast.

4. Magnetic resonance angiography (MRA) of the head without and with contrast.

5. Magnetic resonance angiography (MRA) of the neck without and with contrast.

HISTORY: 48-year-old male with hemangioma in the right tonsillar region.

TECHNIQUE:
1. Computed tomography of the head was performed without contrast according to standard protocol. Computed

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Saint Louis, Missouri 63110

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WASHINGTON UNIVERSITY
MEDICAL CENTER

BUCKLEW, RUSSELL
DOB: 05/16/1968
PAT CLASS: Outpatient
MRN: 4280226

This exam was performed at Barnes-Jewish Hospital

tomographic angiography was obtained from the level of the aortic arch to the vertex following the uneventful administration of intravenous contrast. 3D images were generated on a dedicated workstation.
Contrast information: 98 mL Optiray-350

2. Multiplanar multi-weighted MRI of the face and neck was performed without and with intravenous contrast using the standard face and neck protocol. Magnetic resonance angiography of the head was performed using separate data set acquisitions including a non-contrast time-of-flight technique and a post-contrast technique to produce axial thin-slice source images. Magnetic resonance angiography of the neck was performed using a separate data set acquisition non-contrast time-of-flight technique and a post-contrast technique to produce thin-slice source images. These images were then used to generate maximum intensity projection (MIP) images.
Contrast information: 18 mL Dotarem

COMPARISON: MRI of neck dated 06/24/2010.

FINDINGS:

An approximately 4.4 cm (transverse) x 3.9 cm (anteroposterior) soft tissue mass arises in right tonsillar region, corresponding to the patients known hemangioma. It has slightly decreased in size, measuring 4.35 cm in lateromedial dimension on this exam, and it measured 4.72 cm in lateromedial dimension on the MRI in 2010.

The mass extends into the right masticator space (involving the right medial pterygoid muscle, and the buccal fat and the pterygopalatine fossa), the right parapharyngeal space, the right posterior floor of mouth, and the right soft palate and uvula. In the oral cavity, the tumor extends along the roof of the oral cavity to involve the hard palate and the soft palate, and it extends anteriorly to the soft tissue of the face, as well as upper lip and nose on the right side of the face. This causes narrowing of the oropharynx and the nasopharynx.

On the CTA, this mass is confirmed, also slightly decreased in size. This decrease in size involves predominantly the right posterior nasal component and masticator space component. Punctate densities likely represent calcifications versus prior interventions. The mass splays the right medial and lateral pterygoid plates and encroaches upon the right portion of the retropharyngeal space. The right internal carotid artery is not involved. A lobulated component of this mass involves the posterior nasal septum and right ethmoid paranasal sinus. An approximately 1 cm component involves the medial right extraconal orbit, as well as the right optic nerve at the orbital apex.

There is a gap and dehiscence of the right cribriform plate with an apparent meningocele descending into the region of the right ethmoid sinus. This is unchanged from the MR of 06/24/2010. This cribriform defect and meningocele may be due to involution of the hemangioma following the presumed intervention of several years ago. The remainder of the brain is unremarkable.

Regard the CTA portion of the examination, the origins of the common carotid arteries and vertebral arteries are normal. The common carotid bifurcations are normal. The courses of the internal carotid arteries are normal. There is a slight enlargement of the right facial artery and the right temporal artery. The circle of Willis is unremarkable. The left vertebral artery is dominant. No aneurysm is seen. No vascular stains supplying the hemangioma.

The nasopharyngeal airway is narrowed and displaced to the left. Also noted is a bullet fragment within the posterior left neck.

No other head and neck blood vessel abnormalities are seen.

IMPRESSION:

510 Boulevard
Saint Louis, Missouri 63110

MIR

MALLINCKRODT
INSTITUTE OF RADIOLOGY
WASHINGTON UNIVERSITY
MEDICAL CENTER

BUCKLEW, RUSSELL
DOB: 05/16/1968
PAT CLASS: Outpatient
MRN: 4280226

This exam was performed at Barnes-Jewish Hospital

1. Extensive deformation of the deep spaces of the midface due to known hemangioma.

2. Slight decrease in size of this hemangioma.

Dictated By: WEI WANG, M.D. on Dec 23 2016 1:25P

This document has been electronically signed by: FRANZ WIPPOLD, M.D. on Dec 23 2016 1:49P

EXHIBIT D

[CDs containing the MRI and CT image files will be sent separatcly via FedEx First Overnight]

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STATE OF MISSOURI
DEPARTMENT OF CORRECTIONS
PRE-EXECUTION SUMMARY OF MEDICAL HISTORY

Offender Name: Russell E Bucklew Age: 45 Weight: 168 Height: 5'8

ALLERGIES: Tramadol, Compazine

Most Recent Vital Signs: Temp: 98.0 Pulse: 109 Resp: 20 B/P: 142/84 Pulse Oximetry: 99%

Date: 5/2/14 Date: 5/2/14 Date: 5/2/14 Date: 5/2/14 Date: 5/2/14

Current Medications: Tramadol, clonazepam, hydroxyzine, gabapentin, ranitidine,

Prior Surgeries: Fracture right hand + arm, thoracotomy

Medical Problems: Gunshot wound to head 1996, Cavernous hemangioma- right half of maxilla (upper jaw) and upper lip present for 20 plus years, Hx of

Please complete the following questions based upon a review of the offender's healthcare and confinement records.

		Yes	No	Unknown
1. Has the offender recently had a cold or the flu?	1.		✓	
2. Does the offender experience shortness of breath with activity?	2.		✓	
3. Does the offender have Asthma, bronchitis, or any other breathing problems?	3.		✓	
4. Does the offender wake up at night short of breath?	4.		✓	
5. Has the offender ever had chest pain/heart attack/palpitations?	5.		✓	
6. Does the offender have a heart condition/high blood pressure history or heart failure?	6.		✓	
7. Does the offender have Diabetes or Thyroid disease?	7.		✓	
8. Has the offender ever had Hepatitis, Jaundice, or any Liver disease?	8.		✓	
9. Does the offender have any type of Kidney disease?	9.		✓	
10. Does the offender have a history of Ulcers, Hiatal Hernia, or Gastric Reflux disease?	10.	✓		
11. Does the offender have back or neck pain?	11.	✓		
12. Does the offender have any numbness, weakness, or paralysis in the offender's arms or legs?	12.		✓	
13. Does the offender have a history of stroke?	13.		✓	
14. Does the offender have any muscle or nerve disease (Epilepsy or Parkinson's)?	14.		✓	
15. Has the offender ever had a blood transfusion?	15.			✓
16. Does the offender smoke? Has the offender ever smoked? Packs/day 2 Years smoked 20 yrs	16.	✓		
17. Does the offender have a history of IV drug use?	17.		✓	

Explanation of any YES answers: 11. Complains of pain in jaw area
10. Acid reflux (medical problems)

Completed By: Delaine Webb BSN Date: 5/7/14

MISSOURI DEPARTMENT OF CORRECTIONS
PREPARATION AND ADMINISTRATION OF CHEMICALS
FOR LETHAL INJECTION

A. Execution Team Members

The execution team consists of department employees and contracted medical personnel including a physician, nurse, and pharmacist. The execution team also consists of anyone selected by the department director who provides direct support for the administration of lethal chemicals, including individuals who prescribe, compound, prepare, or otherwise supply the chemicals for use in the lethal injection procedure.

B. Preparation of Chemicals

Medical personnel shall prepare the lethal chemicals. The quantities of these chemicals may not be changed without prior approval of the department director. The chemicals shall be prepared and labeled as follows:

1. Syringes 1 and 2: Five (5) grams of pentobarbital (under whatever name it may be available from a manufacturer, distributor or compounding pharmacy), 100 ml of a 50 mg/mL solution, shall be withdrawn and divided into syringes labeled "1" and "2."

2. Syringe 3: 30 cc of saline solution.

3. Syringes 4 and 5: Five (5) additional grams of pentobarbital (under whatever name it may be available from a manufacturer, distributor or compounding pharmacy), 100 ml of a 50 mg/mL solution, shall be withdrawn into syringes labeled "4" and "5."

4. Syringe 6: 30 cc of saline solution. This syringe is prepared in the event that additional flush is required.

C. Intravenous lines

1. Medical personnel shall determine the most appropriate locations for intravenous (IV) lines. Both a primary IV line and a secondary IV line shall be inserted unless the prisoner's physical condition makes it unduly difficult to insert more than one IV. Medical personnel may insert the primary IV line as a peripheral line or as a central venous line (e.g., femoral, jugular, or subclavian) provided they have appropriate training, education, and experience for that procedure. The secondary IV line is a peripheral line.

2. A sufficient quantity of saline solution shall be injected to confirm that the IV lines have been properly inserted and that the lines are not obstructed.

D. Monitoring of Prisoner

1. The gurney shall be positioned so that medical personnel can observe the prisoner's face directly or with the aid of a mirror.

2. Medical personnel shall monitor the prisoner during the execution.

E. Administration of Chemicals

1. Upon order of the department director, the chemicals shall be injected into the prisoner by the execution team members under the observation of medical personnel. The lights in the execution support room shall be maintained at a sufficient level to permit proper administration of the chemicals.

2. The pentobarbital from syringes 1 and 2 shall be injected.

3. The saline solution from syringe 3 shall be injected.

4. Following a sufficient amount of time for death to occur after the injection of syringe 3, medical personnel shall examine the prisoner to determine if death has occurred. If the prisoner is still breathing, the additional five grams of pentobarbital will injected from syringes 4 and 5 followed by the saline from syringe 6.

5. At the completion of the process and after a sufficient time for death to have occurred, medical personnel shall evaluate the prisoner to confirm death. In the event that the appropriate medical personnel cannot confirm that death has occurred, the curtain shall be reopened until an appropriate amount of time has passed to reevaluate the prisoner.

F. Documentation of Chemicals

1. Medical personnel shall properly dispose of unused chemicals.

2. Before leaving ERDCC, all members of the execution team present at the execution shall complete and sign the "Sequence of Chemicals" form thereby verifying that the chemicals were given in the order specified in this protocol.

3. Before leaving ERDCC, one of the medical personnel present at the execution shall complete and sign the "Chemical Log" indicating the quantities of the chemicals used and the quantities of the chemicals discarded during the execution.

4. Within three days of the execution, the ERDCC warden shall submit the Sequence of Chemicals and the Chemical Log to the director of the Division of Adult Institutions (DAI). The DAI division director and the department director shall review the records. If they do not detect any irregularities, they shall approve the two documents. If any irregularities are noted, the DAI division director shall promptly determine whether there were any deviations from this protocol and shall report his findings to the department director.

Missouri Department of Corrections
Revised October 18, 2013

Photo 6: lower extremities and right inguinal puncture wounds

IN THE UNITED STATES DISTRICT COURT

WESTERN DISTRICT OF MISSOURI

RUSSELL BUCKLEW,	)	
	)	
Plaintiff,	)	
	)	
vs.	)	Case No. 4:14-CV-8000-BP
	)	
GEORGE A. LOMBARDI,	)	
	)	
DAVID A. DORMIRE	)	
	)	
and	)	
	)	
TERRY RUSSELL,	)	
	)	
Defendants.	)	

RULE 26(a)(2) EXPERT REPORT

SUPPLEMENTAL EXPERT REPORT OF JOEL B. ZIVOT, M.D.

I, JOEL B. ZIVOT, being of sound mind and lawful age, hereby state under penalty of perjury as follows:

I. QUALIFICATIONS

A. Education

1. I received my Doctor of Medicine from the University of Manitoba, Canada, in 1988. From 1989–1993, I was a resident in Anesthesiology at the University of Toronto, Department of Post Graduate Medical Education, and from 1993–1995, I completed an additional residency in Anesthesiology and a Fellowship in Critical Care Medicine at the Cleveland Clinic Foundation, Department of Anesthesiology in Cleveland, Ohio.

B. Professional Licenses, Certifications and Memberships

1. I hold an active medical license from the State of Georgia and have held unrestricted medical licenses in Ohio, the District of Columbia, Michigan, and the Canadian provinces of Ontario and Manitoba. I also hold an active license to prescribe narcotics and other controlled substances from the federal Drug Enforcement Administration (DEA).

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2. I hold board certification in Anesthesiology from the Royal College of Physicians and Surgeons of Canada and the American Board of Anesthesiology. I am also board certified in Critical Care Medicine from the American Board of Anesthesiology.

C. Professional Experience

1. I have served as the Medical Director of the Cardio-Thoracic Intensive Care Unit and the Fellowship Director for Critical Care Medicine at Emory University Hospital. I am an Associate Professor of Anesthesiology and Surgery at the Emory University School of Medicine and an adjunct Professor of Law at Emory University Law School. A complete list of my qualifications and publications authored in the last ten years is provided in my curriculum vitae attached as Exhibit A to this report.

2. I have practiced anesthesiology and critical care medicine for 22 years, and, in that capacity, I have personally performed or supervised the care of more than 42,000 patients.

3. In the course of my career, I have regularly performed or supervised the anesthesia care of numerous patients whose airways would be termed "difficult" or "very difficult" according to the Mallampati Classification. Airway evaluation includes this prediction score on securing the airway, where Mallampati I is predicted to be straightforward and Mallampati IV is predicted to be very difficult.

4. I am, by reason of my experience, training, and education, an expert in the fields of anesthesiology and critical care medicine. The opinions that follow are within my field of expertise, and are stated to a reasonable degree of medical and scientific certainty unless otherwise noted.

5. A complete list of the cases in which I have given expert testimony is attached as Exhibit B to this report.

D. Compensation

1. My compensation in this matter is as follows: (1) expert fee of $400/hour; (2) 15 hours of record and document review, report writing, and consultation with counsel since October 2016; and (3) approximately 12 hours of travel and examination of Mr. Bucklew with an estimated cost of $3000.00.

II. SUBJECT OF OPINIONS

A. I have been asked by Mr. Bucklew's attorneys in the above-referenced case to render an expert opinion regarding the risks and complications stemming from Mr. Bucklew's deteriorating medical condition—specifically the growing obstruction in Mr. Bucklew's airway—on the execution of Mr. Bucklew by means of lethal injection.

B. As a medical doctor, I am ethically prevented from prescribing or proscribing a method of executing a person. I am bound by these ethics, and am prohibited from assessing whether a different form of execution would be feasible. Therefore, while I can assess Mr. Bucklew's current medical status and render an expert opinion as to the documented and significant risks associated with executing Mr. Bucklew under Missouri's current Execution Procedure, I cannot advise counsel or the Court on how to execute Mr. Bucklew in a way that would satisfy Constitutional requirements.

C. In developing my opinion, and in addition to the materials I reviewed in connection with my declaration dated May 8, 2014, I have considered the following: (1) The report of medical imaging performed at Barnes-Jewish Hospital dated December 23, 2016 [Exhibit C]; (2) Mr. Bucklew's December 19, 2016 MRI and CT imaging from Barnes-Jewish Hospital at Washington University in St. Louis Missouri [Exhibit D]; (3) my own in-person examinations of Mr. Bucklew conducted on May 12, 2014 and on January 8, 2017; (4) Mr. Bucklew's medical records; (5) the Missouri Department of Corrections Procedure for Execution (the "Execution Procedure"); and (6) the Declaration of Joseph F. Antognini dated November 8, 2016.

III. SUMMARY OF OPINIONS

A. Mr. Bucklew suffers from a debilitating, incurable, and progressive condition known as cavernous hemangioma. This condition occurs sporadically and congenitally in the population and not as a consequence of any action on the part of Mr. Bucklew. This condition has caused large diffuse, vascular (blood-filled) tumors to form and grow in Mr. Bucklew's nasal cavity, face, and throat. Cavernous hemangiomas in the nasal cavity, face, and throat are a medically recognized cause of death by suffocation.

B. As a result of the hemangiomas located in Mr. Bucklew's nasal cavity, face and throat, and to a lesser-degree residual scar tissue from a past tracheostomy procedure, Mr. Bucklew's airway is medically termed a "very difficult" airway. Specifically, on the Mallampati four-point scale, Mr. Bucklew's airway is a Mallampati class IV. It is highly likely that Mr. Bucklew, as a result of having a Mallampati class IV airway, would require a surgical airway (i.e., tracheostomy)

in order to safely undergo a surgical procedure requiring a general anesthetic.[1] Mr. Bucklew's airway is so compromised that it is highly unlikely that he could be safely intubated without experiencing a serious hemorrhagic event within his throat.

C. Because of the degree to which Mr. Bucklew's airway is compromised by the hemangiomas, the anatomical mechanics of airflow and breathing, and the particular psychological and physical effects of lethal injection, it is highly likely that Mr. Bucklew would be unable to maintain the integrity of his airway during the time after receiving the lethal injection and before death.

D. Contrary to Dr. Antognini's assertion, the effect of pentobarbital injection as outlined in the Execution Procedure is highly unlikely to be experienced as "rapid unconsciousness followed by death." In my professional medical opinion, the effects of such an injection are highly unlikely to be instantaneous and the period of time between receiving the injection and death could range over a few minutes to many minutes. My view here is supported both by my own professional knowledge of how chemicals of this type are likely to exert their effects in the body as well as by the te[illegible] of Missouri's Execution Procedure, which calls for a waiting period of five minutes after the first two pentobarbital injections, before examining the inmate to determine whether death has occurred. The Execution Procedure expressly acknowledges that the first two Pentobarbital injections may not have caused death within five minutes, in which case a second round of injections is required.

E. As a result of his inability to maintain the integrity of his airway for the period of time beginning with the injection of the Pentobarbital solution and ending with Mr. Bucklew's death several minutes to as long as many minutes later, Mr. Bucklew would be highly likely to experience feelings of "air hunger" and the excruciating pain of prolonged suffocation resulting from the complete obstruction of his airway by the large vascular tumor.

F. As a result of this prolonged experience of suffocation, it is highly likely that Mr. Bucklew will struggle to breathe – a struggle apparent as convulsive movements—and as a result, given the highly friable and fragile state of the tissue of Mr. Bucklew's mouth and airway, he will likely experience hemorrhaging and/or the possible rupture of the tumor. The resultant hemorrhaging will further impede Mr. Bucklew's airway by filling his mouth and airway with blood, causing him to choke and cough on his own blood during the lethal injection process. It is not necessary that Mr. Bucklew be fully conscious in order to experience the excruciating pain and feeling of prolonged suffocation. Also,

[1] Note that while I generally object to Dr. Antognini's comparison between the medical act of general anesthesia and the non-medical act of lethal injection, for the limited purpose of this opinion I refer to the necessity of a tracheotomy in order to undergo general anesthesia only as a frame of reference for the degree to which Mr. Bucklew's airway is compromised. In short, even in a room full of doctors, Mr. Bucklew could not safely lose consciousness by way of sedation without the immediate capability of performing a surgical airway.

regardless of whether Mr. Bucklew is fully conscious, bleeding in his mouth and throat will cause choking and coughing and the coughed blood will be visible to viewers of the execution procedure.

G. In summary, I conclude with a reasonable degree of medical and scientific certainty that it is highly likely that Mr. Bucklew, given his specific congenital medical condition, cannot undergo lethal injection without experiencing the excruciating pain and suffering of prolonged suffocation, convulsions, and visible hemorrhaging.

IV. OBJECTIVE FACTUAL BASES FOR OPINIONS

A. A patient's airflow during breathing will typically be described as either being laminar or turbulent. Laminar flow is a smooth, orderly, linear flow of air with low resistance and is experienced as "easy" breathing by the patient. Turbulent flow, by contrast, is disorganized, has high resistance, and is experienced by the patient as "difficult" breathing. Four factors impact whether airflow is laminar or turbulent: (1) aperture or diameter of the airway, (2) length of the airway, (3) velocity of the flow, and (4) density of the gas. Of these four factors, the most pertinent in this case is the aperture of the airway. The smaller or more obstructed a patient's airway becomes, the more turbulent the flow of air becomes. This aperture narrowing is experienced by the patient as an inability to easily breathe. When a patient feels as though he cannot take a breath, the usual reaction is to breathe harder and faster to take in more air. This triggers the third factor listed above: "velocity of the flow." The faster a patient breathes, the more turbulent the flow becomes, particularly through a narrow or obstructed airway.

B. Diameter of the airway, or aperture, can be further understood with reference to the Mallampati classification used to describe how "difficult" it is to secure an airway in the setting of a medical procedure. An airway can be difficult because of anatomical abnormalities, both congenital and acquired. In this case difficulty in maintaining airway patency is a direct consequence of cavernous hemangiomas in Mr. Bucklew's airway.

C. In clinical cases where a patient has a Mallampati IV airway, an anesthesiologist must proceed with extreme caution and implement specialized precautions, such as creating a surgical airway via tracheotomy, to maintain the integrity of the patient's airway in order to safely prepare a patient for any procedure where the patient is sedated and unable to assist in supporting his or her own ventilation. This is supported by Mr. Bucklew's own medical records, referenced by Dr. Antognini, in which it was noted that Mr. Bucklew underwent a tracheotomy in connection with surgical procedures under general anesthesia [Decl. of Antognini; PC486].

D. Cavernous hemangioma is a condition that results in vascular lesions consisting of abnormally dilated blood vessels. These blood vessels form cavern-like pockets, i.e. vascular tumors or hemangiomas, in which blood pools. The pockets then

leak, or hemorrhage, as a result of defects in the walls of the blood vessels. The lesions can vary in size, and are linked to varying side effects including seizures, stroke symptoms, hemorrhages, and headaches, depending upon the size and location of the particular lesion, and the relative strength of the walls of the affected blood vessels. In addition, symptoms may resolve or reappear over time as the vascular tumor changes in size as it leaks and reabsorbs blood.

E. While the vascular tumors are often benign, in certain cases, such as Mr. Bucklew's, the progressive condition is life-threatening as it eventually leads to obstruction of the patient's airway leading to asphyxiation and death.

V. RECORD EVIDENCE SUPPORTING OPINIONS

A. Historic Medical Records

1. Mr. Bucklew's medical records indicate that, since birth, he has suffered from cavernous hemangioma resulting in vascular tumor formations in his face, brain, and throat. [Bates PC202]. The specific hemangioma at issue affects Mr. Bucklew's nasal cavity, face, right eye, and airway—approaching both the base of Mr. Bucklew's skull and his carotid artery. [PC202]. The location of Mr. Bucklew's hemangioma has resulted in a grossly enlarged uvula and narrowing of his airway resulting in generally turbulent air flow, which Mr. Bucklew experiences as shortness of breath or difficulty breathing.

2. Mr. Bucklew's condition is inoperable due to the severe risk of blood loss during surgery. Furthermore, due to the large size of the hemangioma, Mr. Bucklew's condition has been found to no longer be amenable to sclerotherapy [PC2257].

3. As a result of his condition, Mr. Bucklew has experienced "excruciating" pain and numerous hemorrhagic events, including bleeding from the face and mouth, necessitating emergency trips to the medical unit in which pressure with gauze was applied in order to slow the bleeding. [see e.g. PC2238, PC2227, PC2506].

4. As previously described in my Supplemental Declaration dated December 4, 2015, Mr. Bucklew's tumors are painful, easily bleed, and spontaneously hemorrhage. Mr. Bucklew has described past hemorrhages as sometimes "squirting" blood, while other times presenting as a "slow leak." [PC103].

5. Specifically with respect to Dr. Antognini's discussion of Mr. Bucklew's procedures between 2000 and 2003, Mr. Bucklew's records confirm that he underwent procedures in that time period that required general anesthesia. Records of a procedure that occurred in 2000, however, explicitly state that Mr. Bucklew received a tracheotomy, a procedure undertaken in cases of difficult airways for purposes of maintaining the

integrity of the airway while a patient is under anesthesia. [PC486]. Contrary to Dr. Antognini's apparent conclusion that Mr. Bucklew's airway does not warrant any special considerations, Mr. Bucklew's records show that special procedures were undertaken to account for Mr. Bucklew's difficult airway.

B. Findings of In-Person Examinations

1. The tumors obstructing Mr. Bucklew's airway are so large that Mr. Bucklew is no longer able to lie down flat on his back while sleeping without suffocating. On January 8, 2017, Mr. Bucklew explained that in order to breathe while sleeping, he must sleep on his right side with his head elevated at roughly a 45 degree angle. This position allows Mr. Bucklew to sleep without his airway becoming obstructed by the turn in his airway and his grossly enlarged uvula.

2. Even with the above precautions, Mr. Bucklew explained that his uvula occasionally gets "stuck" in his throat while he sleeps, causing him to wake up feeling as though he is choking and unable to breathe. In addition, the above precautions do not prevent Mr. Bucklew's tumors from leaking or hemorrhaging during the night. When asked to describe his typical morning, Mr. Bucklew explained that the first thing he does each morning is to clean off the blood on his face that leaked from his nose and mouth while he slept.

3. During my examination of Mr. Bucklew on January 8, 2017, I noted several large hemangiomas visible in Mr. Bucklew's hard and soft palate, lip, nose, and uvula. Of particular relevance to the aperture of Mr. Bucklew's airway were the grossly enlarged uvula and the easily visible hemangiomas on his hard and soft palates. Mr. Bucklew also has an easily visible hemangioma growing out of his upper lip and over his mouth. This tumor has enlarged in size since my prior examination of Mr. Bucklew.

4. In addition to the hemangiomas compromising Mr. Bucklew's airway, I also observed that Mr. Bucklew has residual scarring over the front of his throat caused by the past tracheostomy procedure. Mr. Bucklew explained that the scar tissue is tethered to his trachea in a way that makes it difficult to breathe and swallow. This scar tissue contributes to the obstruction of Mr. Bucklew's airway and increases the turbulence of the air flow through Mr. Bucklew's airway.

5. I also observed that Mr. Bucklew had residual loss of feeling in the right side of his face, causing him to be unable to completely close his right eye.[2]

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[2] Dr. Antognini asserts, without having examined Mr. Bucklew, that Mr. Bucklew definitively has not suffered a stroke as a result of his condition. He bases his assertion on the fact that Mr. Bucklew "has recently been observed to

6. I also observed during my examination that Mr. Bucklew has very poor veins in both of his arms. Poor venous visualization suggests that establishing intravenous access in the setting of lethal injection will be potentially difficult, prolonged, and painful to Mr. Bucklew.

7. Also during my January 8, 2017 examination of Mr. Bucklew, I asked him to describe his experience during the MRI Procedure on December 19, 2016. He reported experiencing extreme discomfort during the procedure. In order to maintain the integrity of his airway while lying flat, Mr. Bucklew was forced to consciously alter his breathing pattern, and swallow repeatedly to keep his uvula from settling and completely obstructing his airway, in order to avoid choking.

8. Furthermore, as noted in my October 13, 2015 report, the tissue of Mr. Bucklew's airway has become increasingly fragile over time. In fact, Mr. Bucklew's airway is now so fragile that simply touching it causes the tissue to bleed. As most recently reported by Mr. Bucklew on January 8, 2017, the tissue bleeds so easily that it even bleeds while he is sleeping.

9. My finding that the tissue of Mr. Bucklew's airway is extremely fragile is not inconsistent with my suggestion that Mr. Bucklew undergo a clinical examination that would call for a bronchoscopy or use of a Glidescope. [Decl. Antognini, para. 17]. These procedures are intended to be minimally invasive, and a skillful physician would endeavor to insert the tube with an attached camera carefully into the airway without touching the fragile tissue. However, given Mr. Bucklew's present condition and its progressive nature, as of this date it is my professional medical opinion that Mr. Bucklew's airway is so compromised, and the tissue so fragile, that even the undertaking of a minimally invasive evaluation of his airway would pose very high likelihood of airway bleeding and subsequent loss of the airway that could be fatal.

10. As already described, Mr. Bucklew's condition is progressive. As of April 2012, Mr. Bucklew's medical records indicate that his condition did not appear to place him at risk of life-threatening hemorrhage [PC2257]. My examination of Mr. Bucklew on January 8, 2017, as well as my review of the recent MRI and CT imaging report forms the basis for my conclusion that at the present time, Mr. Bucklew is at risk of life-threatening hemorrhage, particularly under the conditions imposed by Missouri's Execution Procedure.

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speak normally and walk without difficulty." In my professional medical opinion, Dr. Antognini's assertion is based upon insufficient medical evidence. The residual effects of a stroke are not limited to speech impairment or decreased ability to walk, and the absence of these residual effects is not definitive proof that an individual has not suffered a stroke. Other symptoms, such as Mr. Bucklew's inability to fully control the muscles of the right side of his face, can be indicative of stroke.

C. December 19, 2016 Imaging and Report

1. The report generated in connection with the MRI imaging conducted on December 19, 2016, confirms my findings that Mr. Bucklew has a large hemangioma impacting his hard and soft palate, lip, nose, uvula, and throat. Specifically, the report describes the relevant portions of the hemangioma as continuing to impact his airway to a significant degree. The hemangioma is reported as smaller by 1/15th of an inch in a region that was not directly within the airway. This difference is without significance and will have no impact in lessening the serious risk to Mr. Bucklew in the setting of his planned execution as outlined above.

2. As already described, Mr. Bucklew's condition is progressive and his airway continues to be compromised. This finding is confirmed both by recent imaging studies and my own personal examination and evaluation of Mr. Bucklew on two separate occasions.

VI. CONCLUSION AND OPINIONS

A. It is my professional opinion that Mr. Bucklew suffers from a severe and life-threatening form of cavernous hemangioma. Given the nature of Mr. Bucklew's condition, it is my medical opinion that the vascular tumors that obstruct Mr. Bucklew's airway will present a permanent threat to his breathing and that life threatening choking episodes will occur on an ongoing basis. When these choking episodes occur, they will be associated with hemorrhaging to a varying degree that will be easily visible by any observer.

B. Mr. Bucklew's particular medical condition places him at almost certain risk for excruciatingly painful choking complications, including visible hemorrhaging, if he is subjected to execution by means of lethal injection.

C. Mr. Bucklew's airway is compromised such that his breathing is labored, and choking and bleeding occur regularly, even under the least stressful circumstances and when Mr. Bucklew is fully alert and capable of taking corrective measures to prevent suffocation.

D. While it is true that Mr. Bucklew is able to go to sleep after taking certain precautionary measures—including positioning himself to maintain a certain head elevation—without asphyxiating, it is not accurate to compare the experience of sleep with the unconsciousness brought on by sedation. When a person begins to choke while sleeping, as often happens to Mr. Bucklew, he is able to wake up and take remedial measures to alleviate the feeling of choking and return to a normal pattern of breathing. When unconsciousness, or reduced consciousness, is brought on by sedation, an individual is incapable of becoming fully alert and ambulatory and is therefore unable to alleviate the feelings of "air hunger" and choking.

E. The Execution Procedure calls for a minimum of three separate injections, to be administered by "non-medical" personnel. As noted above, Mr. Bucklew is

observed to have very poor veins in both of his arms. Mr. Bucklew's veins are so poor that even a qualified and experienced medical professional would have difficulty finding a vein of the proper and necessary quality for large volume intravenous injection as required in the Missouri lethal injection protocol. In these instances, it is frequently necessary to make more than one attempt to place the needle in a viable vein. However, a medical professional will typically start by trying to place the needle in the best available vein. Each subsequent attempt is even less likely to result in the needle being inserted into a suitable vein, because each successive vein will necessarily appear less viable than the one before. The consequences of placing a needle in an inadequate vein can be catastrophic, and in patients with veins as poor as Mr. Bucklew's, it is not uncommon for a vein to "blow" once the fluid begins flowing through the needle.

F. The risk of a vein blowing is even greater where, as here, the chemical being injected is a very strong "base." Certain chemicals can be characterized as either basic or acidic. Strong bases, just like strong acids, are extremely corrosive. The extremely corrosive properties of the Pentobarbital solution called for in the Execution Procedure make it highly likely that Mr. Bucklew's vein would blow during the injection process.

G. The adequacy of Mr. Bucklew's veins is related to the concerns with respect to his airway. Mr. Bucklew is extremely likely to experience an incremental increase in stress with each unsuccessful attempt to find a vein. A blown vein would also greatly increase Mr. Bucklew's stress. As previously explained, the lethal injection procedure itself is naturally a stressful experience. In an individual with Mr. Bucklew's extremely atypical airway, this increase in stress will manifest as increased difficulty breathing because stress typically causes an individual to breathe harder and faster. The increased velocity of air moving through Mr. Bucklew's airway will result in more turbulent airflow, which Mr. Bucklew will experience as an inability to breathe. Therefore, even prior to receiving the lethal injection, Mr. Bucklew is highly likely to experience greatly increased pain and discomfort and a feeling of "air hunger" greater than that which he experiences in the ordinary course of his day. And contrary to his ordinary experience, Mr. Bucklew will not be able to take remedial measures to normalize his breathing.

H. A second factor that is likely to increase the turbulence of Mr. Bucklew's airflow is the fact that the procedure for execution calls for Mr. Bucklew to lie flat during the execution process. However, when forced to lie completely flat, the aperture of Mr. Bucklew's airway is further reduced because of the location of the hemangiomas that necessarily shift so that they further obstruct Mr. Bucklew's airway when he lies flat. Thus, in addition to a greatly increased velocity of flow of air through his airway, the aperture of Mr. Bucklew's airway will significantly decrease. Mr. Bucklew will experience this combination as a painful inability to breathe normally, even as compared to his usual labored breathing.

I. In addition to the above, the Execution Procedure calls for the injection of 5g of pentobarbital, contained in two separate syringes, thereby requiring two separate

injections which will either be inserted into two separate veins, or through a single vein. The pentobarbital is likely to have the effect of impairing Mr. Bucklew's ability to maintain the integrity of his own airway, particularly given the aforementioned factors that will operate to make Mr. Bucklew's breathing extremely labored. Mr. Bucklew will likely not be fully alert or capable of altering his breathing to accommodate his compromised airway as he does while he is fully alert. Unlike when he is asleep naturally, he will not be able to shift position or wake up fully in order to correct his breathing.

J. I strongly disagree with Dr. Antognini's repeated claim that the pentobarbital injection would result in "rapid unconsciousness" and therefore Mr. Bucklew would not experience any suffocating or choking. [Decl. Antognini, ¶ 15]. In my medical opinion, the injection of pentobarbital called for in the Execution Procedure would not result in instantaneous unconsciousness. Rather, Mr. Bucklew would likely experience unconsciousness that sets in progressively as the chemical circulates through his system. It is during this in-between twilight stage that Mr. Bucklew is likely to experience prolonged feelings of suffocation and excruciating pain. This opinion finds support in the Execution Procedure that explicitly allows for the possibility that five minutes after receiving the injection, death may not have occurred and a second series of injections may be necessary. In addition, unconsciousness or semi-consciousness does not necessarily negate the feeling of pain; it only prevents the unconscious or semi-conscious individual from verbally manifesting that pain.

K. Any length of time in which an individual is experiencing choking and suffocation, without the ability to take a breath, is painful. Even if death is achieved after the passage of five minutes, five minutes is an excruciatingly long period of time for the individual to experience feelings of choking or suffocation. The passage of seconds and minutes is medically significant, particularly in Mr. Bucklew's case.

L. When Mr. Bucklew begins to experience the increased velocity of air through his airway coupled with the decreased aperture of his compromised airway, further exacerbated by pentobarbital's progressive effect on his mental and physical state, Mr. Bucklew will naturally struggle to take a breathe. This struggle will likely manifest as convulsive movements regardless of whether Mr. Bucklew is fully conscious. The harder Mr. Bucklew tries to take a breath, the more turbulent the flow of air through his airway will become and Mr. Bucklew will experience this as suffocation.

M. In addition, the increased violence with which Mr. Bucklew attempts to breathe and resultant convulsive movements, combined with the extremely fragile nature of the tissue of his airway, and the increase in blood pressure resulting from increased stress, are highly likely to result in hemorrhaging from the hemangioma in his throat, mouth, and nasal cavity.

N. Mr. Bucklew's airway would be further obstructed by the blood from the hemorrhaging, causing Mr. Bucklew to choke and cough on his own blood during the execution proceeding.

O. In conclusion, it is my professional medical opinion that Mr. Bucklew, as a result of his particular medical condition and the atypical anatomy of his airway, will suffer excruciating pain and prolonged suffocation if he is executed by lethal injection.

"I declare under penalty of perjury that the foregoing is true and correct."

Executed on January 16, 2017

Joel B. Zivot, M.D.

EXHIBIT A

EMORY UNIVERSITY SCHOOL OF MEDICINE
CURRICULUM VITAE

JOEL B. ZIVOT, MD, FRCP(C)

Revised: January, 2017

I. **Contact Information**

Office Address:
1364 Clifton Road, Atlanta, GA 30322

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Fax: (888) 980-5928

E-mail Address: *Jzivot@emory.edu*

II. **Citizenship: American, Canadian**

III. **Current Titles and Affiliations:**

A. Academic Appointments:

1. Primary Appointments:

a. Associate Professor, Department of Anesthesiology

b. Joint and Secondary Appointments:
Associate Professor, Department of Surgery

2. Other academic appointments:

a. Adjunct Professor, Emory School of Law

B. Other Administrative Appointments:

1. Medical Advisor, Southern Center for Human Rights, Atlanta, Georgia

IV. **Previous Academic and Professional Appointments:**

A. Fellowship Director, Critical Care Medicine, Department of Anesthesiology, Emory University School of Medicine, Jan 2013-January 2016

B. Medical Director, 4A/5A, BUH (February 2013 –June 2015)

C. Medical Director, 11S, EUHM (June 2010-February 2013)

D. Associate Professor, Department of Anesthesiology, University of Manitoba, Winnipeg, Manitoba, Canada, 2007-2010

E. Member, Academic Promotions Committee, University of Manitoba, Faculty of Medicine, Winnipeg, Manitoba, Canada, 2009

F. Member of selection committee, Physician Assistant Program, The University of Manitoba, Winnipeg, Manitoba, Canada, 2008

G. Member, Accreditation Review Committee-Anesthesiologist Assistants, Commission on Accreditation of Allied Health Education Programs (ARC-AA), 2008

H. Assistant Professor, Department of Anesthesiology and Critical Care Medicine, George Washington University Hospital, District of Columbia, USA, 2005-2007

I. Program Medical Director, Master of Science in Anesthesiology, Case Western Reserve University School of Graduate Studies, Cleveland, Ohio, USA, 2000-2005

J. Assistant Professor of Anesthesia, Surgery, and Intensive Care, University Hospitals of Cleveland, Case Western Reserve University School of Medicine, Cleveland, Ohio, USA, 1998-2005

K. Director Critical Care Medicine Fellowship, Department of Anesthesiology, University of Michigan Medical Center, Ann Arbor, Michigan, USA, 1996-1998

L. Assistant Professor, Department of Anesthesiology and Critical Care Medicine, University of Michigan Medical Center, 1995-1998

V. **Previous Administrative and/or Clinical Appointments:**

A. Medical Director, Cardio-thoracic ICU, Intensive Care Cardiac Sciences Program, Winnipeg Regional Health Authority, Winnipeg, Manitoba, Canada, 2007-2010

B. Medical Director, CTICU, George Washington University Hospital, Washington, DC, 2005-2007

C. Co-Medical Director, Surgical Intensive Care Unit, University Hospitals of Cleveland, Case Western Reserve University, Cleveland, Ohio, USA, 2002-2005

D. Director, Post Anesthesia Care Unit, Department of Anesthesiology, University of Michigan Medical Center, Ann Arbor, MI, 1995-1998

VI. **Licensures / Boards:**

A. Licentiate, Medical Council of Canada, 1989-present

B. *License, Controlled Substance, Drug Enforcement Agency, 1995-present*

C. *License, Michigan State Medical Board, 1995-2000*

D. *License, Ohio State Medical Board, 1998-2012*

E. *Fellow, American College of Chest Physicians, 2000-2010*

F. *License, District of Columbia Medical Board, 2005-present*

G. *License, College of Physicians and Surgeons of Manitoba, 2007-2011*

H. *License, Georgia Composite Medical Board, 2010-present*

VII. Specialty Boards:

A. Fellow, Royal College of Physicians of Canada, 1993-present

B. *Diplomat, Anesthesiology, American Board of Anesthesiology, 1995-present*

C. *Diplomat, Critical Care Medicine, American Board of Anesthesiology, 1995-present*

D. *Fellow, American College of Chest Physicians, 2000-2010*

E. *Testamur in basic peri-operative trans-esophageal echocardiography, National Board of Echocardiography, 2010-present*

VIII. Education:

A. University of Manitoba, Winnipeg, Manitoba, Canada, 1980-1983

B. University of Toronto, Toronto, Ontario, Canada, 1984

C. Doctor of Medicine, University of Manitoba, Winnipeg, Manitoba, Canada, 1988

IX. Postgraduate Training:

A. Rotating Internship, Mount Sinai Hospital, University of Toronto, Department of Post Graduate Medical Education, Toronto, Canada, 1988-1989

B. Residency, Anesthesiology, University of Toronto, Department of Anesthesiology, Dr. David McKnight, Toronto, Canada, 1989-1993

C. Residency, Anesthesiology, Cleveland Clinic Foundation, Department of Anesthesiology, Dr. Armin Schubert, Cleveland, Ohio, United States, 1993-1994

D. Fellowship, Critical Care Medicine, Cleveland Clinic Foundation, Department of Anesthesiology, Dr. Marc Popovich, Cleveland, Ohio, United States, 1994-1995

E. Masters of Bioethics, Emory Center for Ethics, Dr. Toby Schonfeld, program director, 2012-present, expected graduation spring 2017

X. Committee Memberships:

A. National and International:

1. American Society of Anesthesiology, Committee on Ethics, 2011-present
2. American Society of Anesthesiology, Care Team Committee, 2007-2009
3. Society of Critical Care Medicine, Committee on Ethics, 2011-present
4. Society of Critical Care Medicine, Patient and Family Satisfaction Committee, 2013-present
5. Society of Cardiovascular Anesthesiology, Committee on Ethics, 2012-2013
6. Society of Critical Care Anesthesiologists, Graduate Education Committee 2013-present

B. Regional and State:

1. President, Cleveland Society of Anesthesiology, 2001-2002
2. President Elect, DC Society of Anesthesiology, 2006-2007

C. Institutional:

1. EUHM Committee on Ethics, 2011-present
2. EUHM Pharmacy and Therapeutics Committee 2011-present
3. EUHM Executive Critical Care Committee 2010-present
4. EUHM CAUTI and CLABSI prevention committee 2010-present
5. EUH Executive Pharmacy Committee 2012-present
6. EUH Antibiotic Utilization Subcommittee 2012-present
7. EUH Resuscitation Committee 2013-present
8. EUH Difficult Airway ad-hoc group 2013-2014

9. EUH Executive Critical Care Committee 2013-present

10. Department of Anesthesiology Residency Review Committee2013-present

11. EUH/EUHM CTS Quality Committee, 2012-present

XI. Peer Review Activities:

A. Manuscripts:

1. Canadian Journal of Anesthesiology, (manuscript reviewer), 2013

2. Critical Care Medicine, (manuscript reviewer), 2014-2015

3. Mayo Clinic Proceedings, (manuscript reviewer), 2015-

B. Grant reviewer

1. Reviewed grant applications for The Emory Georgia Tech Healthcare Innovation Program (HIP), (HIP-ACTSI-GSU) Seed grant

C. Conference Abstracts:

1. National and International:

- *American Society of Anesthesiology, 2012*
- *Abstract Review Committee and poster session moderator*

2. Regional:

- *Midwestern Anesthesia Resident Conference, 2001-2003*
  Abstract reviewer

XII. Consultantships:

A. Merck Pharmaceuticals, physician advisory board, 2005-2007

B. Consultant for Wireless EKG Monitor, 2004-2005

C. Masimo Corporation, product design and physician advisory board, 2013-present

D. Doximity, physician advisory committee, 2014-present

XIII. Honors and Awards:

A. Robert B. Sweet Clinical Instructor of the Year, University of Michigan, Department of Anesthesiology, 1997

B. Outstanding Clinical Instructor of the Year, Case Western Reserve University, Master of Science in Anesthesiology Program, 1999

C. Clinical Instructor of the Year, University Hospitals of Cleveland, Department of Anesthesiology, 2000

D. Outstanding Clinical Instructor of the Year, Case Western Reserve University, Master of Science in Anesthesiology Program, 2001

E. *Meritorious Service Award, American Academy of Anesthesiologist Assistants, 2003*

This award was given to me for academic work as the medical director of the Masters in Science of Anesthesiology at Case Western Reserve University and also advocacy for scope of practice, and committee work to improve the relationship between the American Society of Anesthesiology and American Academy of Anesthesiologist Assistants.

F. Quality and Patient Safety Award, University Health Systems Consortium, 2002

This award was given by University Health System Consortium for various quality benchmark projects when I was the co-medical director of the Cardio-thoracic Intensive Care Unit at University Hospitals of Cleveland.

G. Distinguished service by a Physician Award, American Academy of Anesthesiologist Assistants, 2005

This award was given to me for work with the American Academy of Anesthesiology Assistants annual meetings where I served as a speaker on multiple locations and also developed and hosted an annual Jeopardy game competition between all of the Masters of Science in Anesthesiology schools around the country.

H. District of Columbia Annual Patient Safety Award, District of Columbia Department of Health, 2006

This award was given by the District of Columbia Department of Health for quality improvement work done when I was the medical director of the cardio-thoracic intensive care unit at George Washington University Hospital. I developed several collaborative quality projects between cardio-thoracic surgery and critical care medicine.

I. Presidential Citation, Society of Critical Care Medicine, 2013

This award was given to me for work done within the Society of Critical Care Medicine that included writing a book chapter, service on 2 society committees, and moderating an online debate about the topic of end of life decisions in patients with implanted mechanical cardiac support devices.

XIV. **Society Memberships:**

A. American Academy of Anesthesiologist Assistant, 2005-present

B. American College of Chest Physicians, 2000-2007

C. American Medical Association, 1995-2000

D. American Medical Association (reactivated), 2010-present

E. Society of Critical Care Anesthesiologists, 1995-present

F. American Society of Anesthesiologists, 1993-present

G. Canadian Anesthesiologist Society, 2007-present

H. District of Columbia Society of Anesthesiologists, 2006-2007

I. International Anesthesia Research Society, 1996-2000

J. International Extra-Corporeal Life Support Organization, 1997-2005

K. Ohio Society of Anesthesiologists, 1993-2005

L. Society of Critical Care Medicine, 1995-present

M. Manitoba Medical Society, 2007-2010

N. Canadian Medical Association, 2008-2012

O. Georgia Society of Anesthesiologists, 2010-present

P. Society of Cardiovascular Anesthesiologists, 2010-present

Q. Society of Academic Anesthesiology Associations, 2013-present

R. Medical Association of Georgia, 2016-

XV. **Organization of National or International Conferences:**

"On the Ethics of Drug Shortages" June 2012, Jointly with the American Society of Anesthesiology and the Emory Center for Ethics

Administrative Positions: Director, Meeting Planning Committee

Sessions as chair: Overall conference chair

XVI. **Research Focus:**

Medicine, moral theory, rhetoric, semantics, end of life, physicians and vulnerable populations. Physician participation in lethal injection. Ethogram to study conflict in the operating room. Human factors in critical care decision-making and biological variability. Developed economic model explaining the national generic drug shortages. Studied Propofol wastage in the operating room.

XVII. Grant Support:

A. Active Support:

1. Other: Team Based Science (TBS) grant from the Department of Anesthesiology for Evaluation of conflict in the operating room, $20,000.00

2. The Emory Georgia Tech Healthcare Innovation Program (HIP), (HIP-ACTSI-GSU) Seed grant, $25,000.00, for "Managing Conflict and Error in the Operating Room". Awarded July 2014.

B. Previous Support:

1. $20,000.00 from the American Society of Anesthesiology to plan the meeting "On the Ethics of Drug Shortages". June 2012

XVIII. Clinical Service Contributions

A. Medical director of 11S ICU (EUHM) and 4A/5A ICU (EUH)

I created and chaired a joint protocol development group with Critical Care Medicine, Surgery, Nursing, and Respiratory Therapy with the purpose of improving quality metrics in critical care medicine. This group accomplished several things including a blood conservation strategy for post-operative cardiac surgery patients, intra-aortic balloon pump removal, DVT and GI prophylaxis and the beginning of an atrial fibrillation management protocol. I also wrote and helped implement a rapid extubation protocol for EUH and EUHM cardiac surgery patients.

B. Hospital Committee involvement

I was involved in several Emory committees that addressed a broad range of issues, (see 12 c)

GME involvement, Fellowship Director, Critical Care Medicine, Department of Anesthesiology

I am the fellowship director for critical care medicine. I developed the first joint Anesthesiology-Emergency Medicine critical care medicine fellowship at Emory and I am expanding the number of fellows who will also be trained to assist in providing overnight coverage for airway management at EUH. Overnight airway

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coverage has been a project of the EUH emergency airway committee on which I am a member. My ongoing conflict project has been embraced by Emory Healthcare Office of Quality and they are also contributing to the funding and management of the project on an ongoing basis.

XIX. Community Outreach:

A. Community Service

1. International:

   St. Petersburg, Russia, 2002, 2004: Home visits to community members who were unable to travel to see a physician

2. Regional:

   Hurricane Katrina Medical Response Team, 2005
   Emory 500 Atlanta Motor Speedway Health Tent Volunteer, 2010

XX. Media

A. Op-Ed:

1. "Baby's status as human is on trial" Op-Ed, Feb. 19, 2010, Winnipeg Free Press, 2010
2. "Why I am for a moratorium on lethal injections" Op-Ed, Dec 15, 2013, USA Today, 2013
3. "The Slippery Slope from Medicine to Lethal Injection" Op-Ed, May 2, 2014 TIME, 2014

B. Interviews:

1. Anesthesiology News, 2002

   -Anesthesiologist Assistants

2. The Medical Post, 2009

   -Waiting for Cardiac Surgery

3. The Health Report, CJOB 68 AM, Winnipeg, Canada, 2010

   -Cardiac Critical Care
   -End of Life in the ICU
   -VIP syndrome

4. Inside the Black Box, WREK 91.1 FM, Atlanta, Georgia, 2011

-Biting the Bullet: The Technology of Anesthesia

5. National Public Radio WABE 90.1 FM Atlanta, Georgia, 2011

-Physicians and the death penalty
-Drug shortages

6. Georgia Public Broadcasting, Atlanta GA, 2012

-Drug shortages reaching critical levels

7. Medpage Today, 2013

-No Advantage for Fresh Blood in ICU Transfusions

-Meningitis Outbreak: Suspicion needed for nausea complaints
-Drug Shortages spark use of compounders

8. Medscape Medical News, 2013

-GPOs to Blame for Drug Shortages, Says Physicians Group

9. Medpage Today, 2014

-Cruel and Unusual Punishment
-Lethal Injection: a cruel, painful, terrifying execution

10. Miami Herald, 2014

-Doctor speaks out on use of untested drugs in capital punishment

11. The New York Times, 2014

-Timeline describes frantic scene at Oklahoma execution

12. The Washington Post, 2014

-Florida's Gruesome Execution Theater
-Another execution gone awry. Now what?

13. CNN with Sanjay Gupta, 2014

-Dr. Zivot: Lethal injection not humane

Joel B Zivot, MD, FRCP(C)
January 2017

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14. Amicus on Slate with Dahlia Lithwick, 2015

-Botched protocols

15. Huffington Post, 2015

-Oklahoma wants to reinstate the gas chamber and experts say it's a bad idea

16. Time, 2015

-The harsh reality of execution by firing squad

XXI. Formal Teaching:

A. Medical Student Teaching:

1. Discovery Project: "Propofol wastage in the ICU" Medical student Mina Tran, 2012-2013, contact hours 4 hrs/week

2. Serve as teacher and mentor for medical students in anesthesiology and critical care medicine. 2010-present, contact hours: 3 hrs/week

3. Instructor for Fundamental Critical Care Support (FCCS) training course for medical students, 2012-present, contact hours: 1 hr/week

4. Forge Medical Student Innovation Group, Mentor, contact hours: 0.5 hrs/week

B. Graduate Programs:

1. Training Programs:

Instructor in the Masters of Science in Anesthesiology program. I developed the first critical care medicine rotation for all of the students and also a series of didactic lectures on the topic of critical care medicine the included "Critical Care Medicine", "Heart Failure", and "Acid-Base Disorders"

2. School of Law:

Co-chief instructor of LAW 819-002, "Law, Medicine and Human Rights", a 2 credit hour seminar taught in the fall 2016 semester in the Emory School of Law

3. Residency Programs:

Served as instructor for residents in anesthesiology, emergency medicine, and surgery in the area of critical care medicine. I also sit on the residency review committee for the Department of Anesthesiology. Lecture topics "Septic shock", "Thyroid disease in critical care", "Mechanical heart support", "Pulmonary artery catheters" "Heuristics and biases in clinical reasoning", "delirium and agitation in critical illness", "biological variability".

C. Other Categories

I give regular lectures on a variety of critical care topics for respiratory therapy including "capnography" and "paralytics". I lecture students in the Emory critical care NP/PA program and also regular critical care lectures to the NP/PA practitioners in critical care. I teach those students how to read chest X-rays. I am invited to lecture in the Emory School of Law on the topic "Physician Assisted Suicide".

Emory Tibet Science Initiative:

I taught biology to Buddhist monks at Drepung Loseling Monastery in Southern India in June 2015. This initiative is a result of an invitation from His Holiness, The Dalai Lama, to bring science education to the education of the monks and represents the first time in 700 years that the curriculum has changed. I spent 2 weeks at the monastery teaching for 6 hours per day including microscopy lab teaching. I worked with a series of translators.

XXII. Supervisory Teaching:

A. Residency Program:

Fellowship director, Critical Care Medicine, Department of Anesthesiology 2013-present. I am chiefly responsible for the education and training of the critical care fellows in the Department of Anesthesiology. In addition to a multitude of critical care topics, I assist the fellows in abstract writing for a national critical care meeting, grand rounds for the Department of Anesthesiology and a quality improvement project for Graduate Medical Education Day that occurs annually in June.

B. Other:

I completed a summer internship at the Southern Center for Human Rights and also teach law students on the topic of lethal injection.

XXIII. Lectureships, Seminar Invitations, and Visiting Professorships:

A. "The Case of Samuel Golubchuk: Lessons about end-of-life decision-making?" A debate between Doctors Joel Zivot and Adrian Fine Wednesday, 18 March, 2009, 12h30-13h30. The Centre for Professional and Applied Ethics, The University of Manitoba, Winnipeg, Manitoba

B. "Cardiac output after the Pulmonary Artery Catheter" American Academy of Anesthesiologist Assistants Annual Meeting. Clearwater, Florida, April 2009

C. "End of Life in the ICU", Canadian Hospice Palliative Care Conference Annual Meeting, Winnipeg, Manitoba, Canada. October 2009

D. "Reductions in wait times for cardiac surgery may be harmful", poster presentation, Canadian Cardiovascular Society Annual Meeting, Edmonton, Alberta, Canada, October 2009

E. "Biological Variability" American Society of Anesthesiology, 2009-(I formed a panel to discuss biological variability. My panel consisted of an anesthesiologist, a mathematician, and a physicist.)

F. "End of life in the ICU: When the patient and doctor disagree…" Province wide health care ethics grand rounds, St. Boniface Research Centre, Winnipeg, Manitoba, Canada. January 2010

G. "Mostly dead is slightly alive, the problem with the dying process" Center for Ethics, Emory University, 2011.

H. "Anesthesiology Jeopardy!" American Academy of Anesthesiologist Assistants Annual Meeting, 2006, 2007, 2008, 2009, 2010, 2011

I. "Queuing Theory: Applications for Anesthesiology" American Academy of Anesthesiologist Assistants Annual Meeting, Destin, Florida, 2011

J. "Cardiac Anesthesia: Mostly we have it wrong" American Academy of Anesthesiologist Assistants Annual Meeting, Destin, Florida, 2011

K. "End of life in the ICU: When the patient and doctor disagree" American Academy of Anesthesiologist Assistants Annual Meeting, Destin, Florida, 2011

L. "Sedating the difficult patient" 5th Annual Southeastern Critical Care Summit. Emory University, Atlanta, GA, March 2012

M. "End of Life Care" IMPACT 2012 American Academy of Physician Assistants Annual Meeting, Toronto, Canada, June 2012

N. "Biosimilars, where do we stand?" Georgia Bio and the Georgia Association of Healthcare Executives. September 2012, Atlanta, Georgia

Joel B Zivot, MD, FRCP(C)
January 2017

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O. "Drug Shortages" Visiting Professor, Rutgers Business School, Newark, New Jersey, November 2012.

P. "Deactivating a permanent cardiac device is not physician assisted death", Pro-con debate Webinar, Society of Critical Care Medicine, November 2012.

Q. "Drug shortages: The invisible hand of the Market" New Horizons in Anesthesiology, Vail, Colorado, February 2013

R. "Hey Anesthesia is a compliment, not an insult: the case for protocols" New Horizons in Anesthesiology, Vail, Colorado, February 2013

S. "Pro/Con: Death Panels in End of Life Care" New Horizons in Anesthesiology, Vail, Colorado, February 2013

T. "Hockey Violence and Killer Apes: Conflict Management in the Operating Room" New Horizons in Anesthesiology, Vail, Colorado, February 2013

U. "Drug Shortages, a failed market" American Society of Anesthesiology Legislative Conference Annual Meeting, April 2013, Washington, DC

V. "Lethal injection in the death penalty", Georgia Law Society and the Southern Center for Human Rights, Atlanta, Georgia, July 2014

W. "Identifying and managing futile care in the ICU", 10th Annual South Easter Critical care Summit, May 2016, Atlanta, Georgia

X. "Capital Punishment and Lethal Injection", Georgia State School of Law, Atlanta, Georgia, September 2016

XXIV. Invitations to National or International Conferences:

A. University of Richmond Law Review, Allen Chair Symposium, 2014, *"The Death Penalty in the United States."*

B. Yale Law School, March 2015, *"Lethal injection."*

C. The Fordham Law Review, Fordham Law School, February 201,6 *"Criminal Behavior and the Brain: When Law and Neuroscience Collide."*

D. American College of Correctional Physicians

Fall Educational Conference
October 2016
Las Vegas, Nevada
"Physician participation in executions: A discussion of the Ethical Challenges and the Pros and Cons, a pro-con debate between Dr. Carlo Musso and Dr. Joel Zivot

E. "Prescribing Price: The Ethics, Science, and Business of Drug Development and Pricing"

Panelist
Emory Conference Center, November 2016
Atlanta, Georgia
Emory Center for Ethics

F. "The First International Emory Tibet Symposium: Bridging Buddhism & Science

Drepung Loseling Monastery
Karnataka State, India"
Panelist: What is life and what are its origins?

XXV. Bibliography:

A. Published and Accepted Research Articles (clinical, basic science, other) in Refereed Journals

1. Perera ER, Vidic DM, **Zivot J.** "Carinal resection with two high frequency jet ventilation delivery systems". Canadian Journal of Anesthesia. Jan 1993; 40(1):59-63. PMID: 8425245

2. **Zivot JB**, Hoffman WD. "Pathological effects of endotoxin". New Horizons. May 1995; 3(2):267-75. PMID:7583168

3. Popovich MJ, Lockrem JD, **Zivot JB.** "Nasal bridle revisited: an improvement in the technique to prevent unintentional removal of small-bore naso-enteric feeding tubes". Critical Care Medicine. March 1996; 24(3):429-31. PMID: 8625630

4. Kumar K, Zarychanski R, Bell DD, Manji R, **Zivot J**, Menkis AH, Arora RC; Cardiovascular Health Research in Manitoba Investigator Group. "Impact of 24-hour in-house intensivist on a dedicated cardiac surgery intensive care unit". *Ann Thorac Surg*. 2009 Oct;88(4):1153-61.doi: 10.1016/j.athoracsur. 2009.04.070

5. *Zivot JB. "The Case of Samuel Golubchuk", AJOB Volume 10, Issue 3 March 2010, pages 56 – 57 doi: 10.1080/15265160903681890.*

6. AbdulRazaq A. H. Sokoro, PhD., **Joel B. Zivot**, , MD, FRCPC, Robert E. Ariano, PharmD, FCCM "Neuroleptic malignant syndrome versus Serotonin syndrome: the search for a diagnostic tool?" Ann Pharmacother. 2011 Sep;45(9):e50.doi: 10.1345/aph. 1P787. Epub 2011 Aug 30.

7. When patient and doctor disagree. **Zivot JB**, CMAJ 2012,Jan 10;184(1):76-6. doi: 10.1503/cmaj. 112-2008

8. **Zivot JB**, "Anesthesia does not reduce suffering at the end of life", Crit Care Med. 2012 Jul; 40(7):2268-9. doi: 10.1097/CCM.0b013e31824fc12b.

9. **Zivot JB**, "The absence of cruelty is not the presence of humanness: physicians and the death penalty in the United States". Philos Ethics Humanit Med. 2012 Dec 3;7(1):13. doi: 10.1186/1747-5341-7-13.

10. Mazzeffi, M, **Zivot J**, Buchman T, Halkos M, "In hospital mortality after cardiac surgery: patient characteristics, timing, and association with postoperative length of intensive care unit and hospital stay". Ann Thorac Surg. 2014 Apr;97(4):1220-5. doi: 10.1010/j.athoracsur.2013. 10.040. Epub 2013 Dec 21.

11. **Zivot JB**, "The withdrawal of treatment is still treatment". Can J Anesth 2014; Oct;61(10):895-8

12. **Zivot J**, "Lethal injection: the states medicalize execution" 49 U. Rich. L. Rev. 711 (2015)

13. **Zivot J**, "Elder care in the ICU: Spin bravely?" Crit Care Med 2015 July;43(7):1526-7\

14. Jones LK, Jennings BM, Goetz RM, Haythorn KW, **Zivot JB**, de Waal FB "An Ethogram to Quantify Operating Room Behavior" Ann Behav Med. 2016 Jan 26. [Epub ahead of print]

15. ***Zivot J, Arenson K, "Lessons learned from physician participation in lethal injection: Is Carter v. Canada a death knell for medical self-regulation?" Can J Anaesth 2016 March;63(3):246-251***

16. **Zivot JB**, "Elderly patients in the ICU: Worth it, or not?" Crit Care Med 2016 April;44(4):842-3

17. Moll V, Ward CT, **Zivot JB**, "Antipsychotic-Induced Neuroleptic Malignant Syndrome after Cardiac Surgery" AA Case Rep. 2016 July 1; 7 (1); 5-8

18. **Zivot J**, "Too Sick to be Executed: Shocking Punishment and the Brain" November 2016 Vol 85, pp 697-703, Fordham Law Review

B. Examination Activities:

1. Committee Member, 2005, National Anesthesiologist Assistant Certification

2. Examination Development Committee

3. Question writer, 2005, Critical Care Medicine, National Board of Medical Examiners

4. Question reviewer, 2015, American Board of Anesthesiology- Maintenance of Certification in Anesthesiology (MOCA), Critical Care Medicine

C. Book Chapters:

1. Bojan Paunovic MD, FRCPC[1], Rizwan Manji MD, PhD, FRCSC[2], Rakesh Arora MD, PhD, FRCSC[2], Johan Stumpfle MD, FRCPC[3], Rohit Singhal MD, FRCSC[2], Joel Zivot MD, FRCPC[4], and Eric Jacobsohn MBChB, MHPE, FRCPC[3] "Diagnosis and Management of Sepsis and Septic Shock in the Cardiac Surgical Patient". Society of Cardiovascular Anesthesiology Monograph, March 2010

2. **Zivot, JB**, "What Are Advance Directives?" Critical Care Ethics: A Practice Guide, Third Ed. Copyright 2014 Society of Critical Care Medicine.

D. Other Publications:

1. **Zivot J**, Hoffman W, Lockrem J, Esfandiari S, Bedocs N, Vignali C, Popovich M. "Changes in gastric intramucosal pH are not predicted by therapeutic changes in conventional hemodynamic variables for septic surgical patients". Critical Care Medicine. 23(1) Supplement A:107, Jan 1995

2. Webster J, Thomson V, **Zivot J.** "Excessive endotracheal tube cuff pressures are common but are not clinically significant". Anesthesiology 87(3 Suppl) A984, 1997

3. Bloch, MG, **Zivot JB**. "Successful transplantation of liver and kidney allografts from a donor maintained on veno-arterial extracorporeal membrane oxygenation". Anesthesia and Analgesia, 94(25 Supplement) S104, Feb 2002

4. **Zivot J**, Polemenakas A, Aggarwall S, Rowbottom J. "Differential lung capnography after single lung transplant". Critical Care Medicine 30(12) Supplement: A90 December 2002

5. Voltz D, **Zivot J**, "Changes in the Bispectral Index during Deep Hypothermic Circulatory Arrest." Society of Critical Care Medicine Annual Meeting, San Francisco, California, January 2003

6. Ravas R, Zivot J, "Blood conservation; Designing a better blood bag", Department of Anesthesiology, University Hospitals of Cleveland, Case Western Reserve University, Cleveland, Ohio, Midwestern Anesthesia Resident Conference (MARC), Chicago, Illinois, March 2003

7. Hacker L, Zivot J "Local anesthetic spread for skin infiltration", Department of Anesthesiology, University Hospitals of Cleveland, Case Western Reserve University, Cleveland, Ohio, Midwestern Anesthesia Residents Conference, Chicago, Illinois, March 2003

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Joel B Zivot, MD, FRCP(C)
January 2017

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Joel B Zivot, MD, FRCP(C)
January 2017

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EXHIBIT B

PRIOR EXPERT TESTIMONY

In the past four years, I have testified as an expert by deposition in the following cases: (1) State of Georgia v. Christopher Calmer; (2) State of Georgia v. Catherine Goins; (3) Anthony Boyd v. Commissioner, Alabama Department of Corrections; (4) Ernest Johnson v. Troy Steele; (5) Joshua Bishop v. GDCP Warden; (6) Brian Keith Terrell v. Homer Bryson, Bruce Chatman, and Other Unknown Employees and Agents, Georgia Department of Corrections; (7) Robert L. Henry v. State of Florida; (8) Marcus Wellons v. Commissioner, Georgia Department of Corrections; (9) Tanya Johnson v. Springhill Hospitals; and (10) In re New England Compounding Pharmacy Inc. Products Liability Litigation. This list is true and correct to the best of my knowledge and recollection.

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EXHIBIT C

Report of MRI Imaging dated December 23, 2016

510 Saint Louis, Missouri 63110

MIR

MALLINCKRODT
INSTITUTE OF RADIOLOGY
WASHINGTON UNIVERSITY
MEDICAL CENTER

BUCKLEW, RUSSELL
DOB: 06/16/1968
PAT CLASS: Outpatient
MRN: 4280226

This exam was performed at Barnes-Jewish Hospital

Attending Physician: ERNIE-PAUL BARRETTE, M.D.
Requesting Physician:
Radiologist(s): FRANZ WIPPOLD, M.D. WEI WANG, M.D.

FINAL REPORT

The radiology attending physician has personally reviewed this study, and has reviewed and/or edited this written report and agrees with it.

ACC#	Date	Time	Exam
30993297	Dec 19, 2016	14:39:00	70496 CT Angio Head w/o & w cont
30993329	Dec 19, 2016	14:39:00	70498 CT Angio Neck
30993701	Dec 19, 2016	17:00:00	70543 MRI Orb,Face,Nk, w&w cont
30993703	Dec 19, 2016	17:00:00	70546 MR Angio Head w&wo cont
30993730	Dec 19, 2016	17:00:00	70549 MR Angio Neck w&wo cont

ACC#	Date	Time	Exam
30993297	Dec 19, 2016	14:39:00	70496 CT Angio Head w/o & w cont
30993329	Dec 19, 2016	14:39:00	70498 CT Angio Neck
30993701	Dec 19, 2016	17:00:00	70543 MRI Orb,Face,Nk, w&w cont
30993703	Dec 19, 2016	17:00:00	70546 MR Angio Head w&wo cont
30993730	Dec 19, 2016	17:00:00	70549 MR Angio Neck w&wo cont

EXAMINATION:
1. Computed tomography angiography (CTA) of the neck.

2. Computed tomography angiography (CTA) of the head without and with contrast.

3. Magnetic resonance imaging (MRI) of the face and neck without and with contrast.

4. Magnetic resonance angiography (MRA) of the head without and with contrast.

5. Magnetic resonance angiography (MRA) of the neck without and with contrast.

HISTORY: 48-year-old male with hemangioma in the right tonsillar region.

TECHNIQUE:
1. Computed tomography of the head was performed without contrast according to standard protocol. Computed

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810 Highland Boulevard
Saint Louis, Missouri 63110

MIR

MALLINCKRODT
INSTITUTE OF RADIOLOGY
WASHINGTON UNIVERSITY
MEDICAL CENTER

BUCKLEW, RUSSELL
DOB: 05/18/1968
PAT CLASS: Outpatient
MRN: 4280228

This exam was performed at Barnes-Jewish Hospital

tomographic angiography was obtained from the level of the aortic arch to the vertex following the uneventful administration of intravenous contrast. 3D images were generated on a dedicated workstation.
Contrast information: 98 mL Optiray-350

2. Multiplanar multi-weighted MRI of the face and neck was performed without and with intravenous contrast using the standard face and neck protocol. Magnetic resonance angiography of the head was performed using separate data set acquisitions including a non-contrast time-of-flight technique and a post-contrast technique to produce axial thin-slice source images. Magnetic resonance angiography of the neck was performed using a separate data set acquisition non-contrast time-of-flight technique and a post-contrast technique to produce thin-slice source images. These images were then used to generate maximum intensity projection (MIP) images.
Contrast information: 18 mL Dotarem

COMPARISON: MRI of neck dated 06/24/2010.

FINDINGS:

An approximately 4.4 cm (transverse) x 3.9 cm (anteroposterior) soft tissue mass arises in right tonsillar region, corresponding to the patients known hemangioma. It has slightly decreased in size, measuring 4.35 cm in lateromedial dimension on this exam, and it measured 4.72 cm in lateromedial dimension on the MRI in 2010.

The mass extends into the right masticator space (involving the right medial pterygoid muscle, and the buccal fat and the pterygopalatine fossa), the right parapharyngeal space, the right posterior floor of mouth, and the right soft palate and uvula. In the oral cavity, the tumor extends along the roof of the oral cavity to involve the hard palate and the soft palate, and it extends anteriorly to the soft tissue of the face, as well as upper lip and nose on the right side of the face. This causes narrowing of the oropharynx and the nasopharynx.

On the CTA, this mass is confirmed, also slightly decreased in size. This decrease in size involves predominantly the right posterior nasal component and masticator space component. Punctate densities likely represent calcifications versus prior interventions. The mass splays the right medial and lateral pterygoid plates and encroaches upon the right portion of the retropharyngeal space. The right internal carotid artery is not involved. A lobulated component of this mass involves the posterior nasal septum and right ethmoid paranasal sinus. An approximately 1 cm component involves the medial right extraoral orbit, as well as the right optic nerve at the orbital apex.

There is a gap and dehiscence of the right cribriform plate with an apparent meningocele descending into the region of the right ethmoid sinus. This is unchanged from the MR of 06/24/2010. This cribriform defect and meningocele may be due to involution of the hemangioma following the presumed intervention of several years ago. The remainder of the brain is unremarkable.

Regard the CTA portion of the examination, the origins of the common carotid arteries and vertebral arteries are normal. The common carotid bifurcations are normal. The courses of the internal carotid arteries are normal. There is a slight enlargement of the right facial artery and the right temporal artery. The circle of Willis is unremarkable. The left vertebral artery is dominant. No aneurysm is seen. No vascular stains supplying the hemangioma.

The nasopharyngeal airway is narrowed and displaced to the left. Also noted is a bullet fragment within the posterior left neck.

No other head and neck blood vessel abnormalities are seen.

IMPRESSION:

Saint Louis, Missouri 63110

MIR

MALLINCKRODT
INSTITUTE OF RADIOLOGY
WASHINGTON UNIVERSITY
MEDICAL CENTER

BUCKLEW, RUSSELL
DOB: 05/16/1968
PAT CLASS: Outpatient
MRN: 42602226

This exam was performed at Barnes-Jewish Hospital

1. Extensive deformation of the deep spaces of the midface due to known hemangioma.

2. Slight decrease in size of this hemangioma.

Dictated By: WEI WANG, M.D. on Dec 23 2016 1:25P

This document has been electronically signed by: FRANZ WIPPOLD, M.D. on Dec 23 2016 1:49P

EXHIBIT D

[CDs containing the MRI and CT image files will be sent separately via FedEx First Overnight]

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STATE OF MISSOURI
DEPARTMENT OF CORRECTIONS
PRE-EXECUTION SUMMARY OF MEDICAL HISTORY

nder Name: Russell E Bucklew Age: 45 Weight: 168 Height: 5'8

ERGIES: Taradol, Compazine

t Recent Signs: Temp: 98.0 Date: 5/2/14 Pulse: 109 Date: 5/2/14 Resp: 20 Date: 5/2/14 B/P: 142/84 Date: 5/2/14 Pulse Oximetry: 99% Date: 5/2/1

ent Medications: Tramadol, clonazepam, hydroxyzine, gabapentin, nitidine,

Surgeries: Fracture Right hand + arm, thoracotomy

ical Problems: Gun shot wound to head 1996, Cavernous hemangioma - rig of maxilla (upper jaw) and upper lip present for 20 plus years, Ar

e complete the following questions based upon a review of the offender's hcare and confinement records.

		Yes	No	Unknow
as the offender recently had a cold or the flu?	1.		✓	
oes the offender experience shortness of breath with activity?	2.		✓	
oes the offender have Asthma, bronchitis, or any other breathing problems?	3.		✓	
oes the offender wake up at night short of breath?	4.		✓	
as the offender ever had chest pain/heart attack/palpitations?	5.		✓	
oes the offender have a heart condition/high blood pressure history or heart failure?	6.		✓	
oes the offender have Diabetes or Thyroid disease?	7.		✓	
as the offender ever had Hepatitis, Jaundice, or any Liver disease?	8.		✓	
oes the offender have any type of Kidney disease?	9.		✓	
Does the offender have a history of Ulcers, Hiatal Hernia, or Gastric Reflux disease?	10.	✓		
Does the offender have back or neck pain?	11.	✓		
Does the offender have any numbness, weakness, or paralysis in the offender's arms or legs?	12.		✓	
Does the offender have a history of stroke?	13.		✓	
Does the offender have any muscle or nerve disease (Epilepsy or Parkinson's)?	14.		✓	
Has the offender ever had a blood transfusion?	15.			✓
Does the offender smoke? Has the offender ever smoked? Packs/day 2 Years smoked 20 yrs	16.	✓		
Does the offender have a history of IV drug use?	17.		✓	

anation of any YES answers: 11. Complains of pain in jaw area
. Acid reflux (medical problems)

pleted By: Delaise Will BSN Date: 5/7/14

June 17, 2

9900038

MISSOURI DEPARTMENT OF CORRECTIONS
PREPARATION AND ADMINISTRATION OF CHEMICALS
FOR LETHAL INJECTION

A. Execution Team Members

The execution team consists of department employees and contracted medical personnel including a physician, nurse, and pharmacist. The execution team also consists of anyone selected by the department director who provides direct support for the administration of lethal chemicals, including individuals who prescribe, compound, prepare, or otherwise supply the chemicals for use in the lethal injection procedure.

B. Preparation of Chemicals

Medical personnel shall prepare the lethal chemicals. The quantities of these chemicals may not be changed without prior approval of the department director. The chemicals shall be prepared and labeled as follows:

1. Syringes 1 and 2: Five (5) grams of pentobarbital (under whatever name it may be available from a manufacturer, distributor or compounding pharmacy), 100 ml of a 50 mg/mL solution, shall be withdrawn and divided into syringes labeled "1" and "2."

2. Syringe 3: 30 cc of saline solution.

3. Syringes 4 and 5: Five (5) additional grams of pentobarbital (under whatever name it may be available from a manufacturer, distributor or compounding pharmacy), 100 ml of a 50 mg/mL solution, shall be withdrawn into syringes labeled "4" and "5."

4. Syringe 6: 30 cc of saline solution. This syringe is prepared in the event that additional flush is required.

C. Intravenous lines

1. Medical personnel shall determine the most appropriate locations for intravenous (IV) lines. Both a primary IV line and a secondary IV line shall be inserted unless the prisoner's physical condition makes it unduly difficult to insert more than one IV. Medical personnel may insert the primary IV line as a peripheral line or as a central venous line (e.g., femoral, jugular, or subclavian) provided they have appropriate training, education, and experience for that procedure. The secondary IV line is a peripheral line.

2. A sufficient quantity of saline solution shall be injected to confirm that the IV lines have been properly inserted and that the lines are not obstructed.

D. Monitoring of Prisoner

1. The gurney shall be positioned so that medical personnel can observe the prisoner's face directly or with the aid of a mirror.

2. Medical personnel shall monitor the prisoner during the execution.

E. Administration of Chemicals

1. Upon order of the department director, the chemicals shall be injected into the prisoner by the execution team members under the observation of medical personnel. The lights in the execution support room shall be maintained at a sufficient level to permit proper administration of the chemicals.

2. The pentobarbital from syringes 1 and 2 shall be injected.

3. The saline solution from syringe 3 shall be injected.

4. Following a sufficient amount of time for death to occur after the injection of syringe 3, medical personnel shall examine the prisoner to determine if death has occurred. If the prisoner is still breathing, the additional five grams of pentobarbital will injected from syringes 4 and 5 followed by the saline from syringe 6.

5. At the completion of the process and after a sufficient time for death to have occurred, medical personnel shall evaluate the prisoner to confirm death. In the event that the appropriate medical personnel cannot confirm that death has occurred, the curtain shall be reopened until an appropriate amount of time has passed to reevaluate the prisoner.

F. Documentation of Chemicals

1. Medical personnel shall properly dispose of unused chemicals.

2. Before leaving ERDCC, all members of the execution team present at the execution shall complete and sign the "Sequence of Chemicals" form thereby verifying that the chemicals were given in the order specified in this protocol.

3. Before leaving ERDCC, one of the medical personnel present at the execution shall complete and sign the "Chemical Log" indicating the quantities of the chemicals used and the quantities of the chemicals discarded during the execution.

4. Within three days of the execution, the ERDCC warden shall submit the Sequence of Chemicals and the Chemical Log to the director of the Division of Adult Institutions (DAI). The DAI division director and the department director shall review the records. If they do not detect any irregularities, they shall approve the two documents. If any irregularities are noted, the DAI division director shall promptly determine whether there were any deviations from this protocol and shall report his findings to the department director.

Nos. 17A911, 17-8151

IN THE
Supreme Court of the United States

RUSSELL BUCKLEW,

Petitioner,

v.

ANNE PRECYTHE, ET AL.,

Respondents.

On Petition for Writ of Certiorari to the
U.S. Court of Appeals for the Eighth Circuit

Application for a Stay of Execution

BRIEF IN OPPOSITION TO PETITION FOR WRIT OF CERTIORARI AND IN OPPOSITION TO APPLICATION FOR STAY OF EXECUTION

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QUESTIONS PRESENTED

1. As the Eighth Circuit found, the district court granted Russell Bucklew "extensive discovery." Bucklew attempted to seek additional discovery about the qualifications of medical personnel. Did the district court properly exercise its considerable discretion when it refused to permit him to discover the qualifications of medical personnel because Bucklew expressly pleaded that the qualifications had no bearing on whether lethal injection would be unconstitutional?

2. No person submitted quantifiable evidence concerning the duration of execution by lethal gas. The only possibly relevant testimony was one expert's vague, unquantified response that execution by lethal gas would occur "quickly." Did the Eighth Circuit correctly hold that Bucklew failed to provide sufficient evidence for the Court to determine whether lethal gas would "significantly reduce a substantial risk of severe pain" compared to lethal injection given this dearth of evidence?

3. *Glossip* holds that "identify[ing] a known and available alternative method of execution that entails a lesser risk of pain [is] a requirement of *all* Eighth Amendment method-of-execution claims." In 2015, the Eighth Circuit held that Bucklew had to plead a readily available alternative method of execution when raising an as-applied challenge to a method of execution. Bucklew chose not to file a petition for certiorari even though this Court gave him a two-and-a-half-month extension to file. Should this Court carve out an exception to *Glossip* for as-applied –challenges when Bucklew delayed bringing that claim for three years?

STATEMENT OF EXHIBITS

Resp.Ex.1: part 1 of Dr. Zivot's deposition and exhibits.

Resp.Ex.2: part 2 of Dr. Zivot's deposition and exhibits.

Resp.Ex.3: part 3 of Dr. Zivot's deposition and exhibits.

Resp.Ex.4: article relied on by Dr. Zivot.

Resp.Ex.5: Dr. Antognini's deposition.

Resp.Ex.6: memorandum in support of summary judgment.

Resp.Ex.7: reply in support of summary judgment.

Resp.Ex.8: order granting summary judgment.

Resp.Ex.9: order denying Rule 59(e) motion.

Resp.Ex.10: panel decision in *Bucklew v. Precythe*, 17-3052.

Resp.Ex.11: 2008 submission by Bucklew to the Eighth Circuit for funding to pursue an as-applied Eighth Amendment challenge

Resp.Ex.12: Bucklew's Fourth Amended Complaint.

Resp.Ex.13: affidavit from Defendants stating that Defendants will not place Bucklew fully supine.

Resp.Ex.14: Bucklew's reply brief.

Resp.Ex.15: order granting Bucklew an extension of time to petition for cert.

Resp.Ex.16: article describing anesthesia EEG metrics.

Resp.Ex.17: 9-1 order denying stay application

Resp.Ex.18: Bucklew's opening brief

Resp.Ex.19: deposition of Matthew Briesacher

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REASONS FOR DENYING THE MOTION AND PETITION 22

I. Bucklew Could Have Brought This Claim Sooner. 22

II. Bucklew Has Not Established Likelihood of Success on the Merits. 24

A. Bucklew's discovery argument is unpreserved and meritless. 24

B. Bucklew will not lie fully supine, so a critical factual predicate of his claim fails. 26

C. Bucklew failed to present evidence concerning how long the "twilight stage" might last. 28

D. The Eighth Circuit correctly determined that the record lacks quantifiable evidence to compare nitrogen-induced hypoxia to lethal injection. 31

E. Bucklew's claim rests on evidence provided by an expert witness who lacks credibility. 34

F. Bucklew is likely to lose on procedural grounds. 36

III. Reviewing Any of the Questions Presented Would Be Unwarranted. 37

CONCLUSION 39

INTRODUCTION

Russell Bucklew has had more opportunity to avail himself of the courts than most people ever receive. In 2008, after an expert witness evaluated his medical condition, Bucklew declared in a petition to the Eighth Circuit that he believed all forms of lethal injection were unconstitutional as applied to him. Since then, he has unsuccessfully sought relief from his capital sentence in three separate lawsuits. Yet he chose not to file this suit—his as-applied challenge—for six years and waited until just 12 days before his initially scheduled execution to do so. Before this Court decided *Glossip v. Gross*, it granted him a last-minute stay so he could appeal the question whether he was required to plead an available, alternative method of execution. He lost that appeal, declined to petition for certiorari, and expressly refused multiple times to plead an alternative method of execution because, in his words, he "disagree[d] with the Court's ruling that [he] must propose an alternative means of execution." The courts nonetheless afforded him four opportunities to amend his complaint.

Through this prolonged litigation, Bucklew has successfully delayed his execution for a decade, but he is no closer to obtaining success than he was in 2008. As Bucklew presented his claim to the Eighth Circuit, Bucklew must prove a long line of factual predicates to have any hope of succeeding. He asserts that when he lies fully supine, gravity causes his engorged uvula to block his airway, which ordinarily is not problematic because he suggests he can swallow to move it. But he insists that at some point during lethal injection, there will occur what he calls a

"twilight stage": a time when the chemicals have rendered him immobile but have not yet rendered him insensate to pain. He contends that he will be unable to swallow and will therefore feel a choking sensation. He asserts that this time will last so long that it constitutes substantial, unnecessary pain and that execution by lethal gas would be substantially less painful. If he fails to prove any of these assertions, he loses on the merits.

Bucklew cannot prove any of these critical predicates. Although he now changes his factual theory and asserts that he need not lie fully supine to maintain a claim, the claim that he would be forced to lie fully supine was central to his argument before the Eighth Circuit. But as the affidavit Defendants attach establishes, Defendants will not force Bucklew to lie fully supine during his execution. Bucklew also has provided neither evidence for how long the "twilight stage" might last, nor how long it would take for nitrogen-induced hypoxia to operate.

Even if this Court determined that the Eighth Circuit erred and that Bucklew submitted sufficient evidence for every factual predicate, he would still ultimately lose on the merits. Even the dissenting opinion suggested that Bucklew could not win on the merits because he presented his evidence through an expert with obvious personal biases and a demonstrated lack of credibility. Bucklew also faces substantial procedural hurdles on which no court has yet ruled.

None of Bucklew's claims justifies a stay of execution or writ of certiorari. Bucklew will lose this suit in the end, and any further delay will only impede the

victims' and the State's "significant interest in meting out a sentence of death in a timely fashion." *Nelson v. Campbell*, 541 U.S. 637, 644 (2004).

STANDARD OF REVIEW

"[A] stay of execution is an equitable remedy, and an inmate is not entitled to a stay of execution as a matter of course." *Hill v. McDonough*, 547 U.S. 573, 583–84 (2006). "[I]nmates seeking time to challenge the manner in which the State plans to execute them must satisfy *all* of the requirements for a stay, including a showing of a significant possibility of success on the merits." *Id.* at 584 (emphasis added). This Court will not grant a stay "unless the movant, by a clear showing, carries the burden of persuasion." *Id.* (citing *Mazurek v. Armstrong*, 520 U.S. 968, 972 (1997) (per curiam)).

This Court has further cautioned that granting a stay impedes "the State's strong interest in enforcing its criminal judgments without undue interference from the federal courts." *Id.* That is because "both the State and crime victims have an important interest in the timely enforcement of a sentence." *Id.* There also is a strong equitable presumption against granting a stay where a party delayed litigation. *Id.* Bucklew cannot meet the demanding burden to obtain a stay.

FACTUAL BACKGROUND

By 1996, Russell Bucklew already had an extensive criminal history, including violence against multiple women. *Bucklew v. Luebbers*, 436 F.3d 1010, 1014 (8th Cir. 2006). When his girlfriend, Stephanie Ray, ended their relationship, Bucklew slashed her face with a knife, beat her, and threatened to kill her. *Id.* at

1013. Terrified, she took her children and fled. *Id.* During the next two weeks, Bucklew stole a car, several firearms, two sets of handcuffs, and duct tape. *Id.* He then covertly stalked Ray until discovering where she was staying. *Id.*

Bucklew burst into that home. With stolen firearms, he shot the homeowner, Michael Sanders, twice, killing him. *Id.* When Sanders' six-year-old son came out of hiding, Bucklew fired at the boy. *Id.* Bucklew pistol-whipped Ray, handcuffed her, dragged her to his car, and raped her. *Id.* at 1013-14. He then engaged in a high-speed chase with police followed by a gunfight where he wounded an officer before succumbing to capture. Bucklew escaped custody and stalked and attacked Ray's mother with a hammer before recapture. *Id.* at 1014. A jury convicted him of numerous crimes and sentenced him to death. *Id.*

I. Bucklew's Medical Condition

Bucklew has long experienced symptoms of hemangioma. Broadly speaking, that disease is common. One variant, for example, occurs in 10 percent of the population. A. Munden, et al., *Prospective Study of Infantile Haemangiomas: Incidence, Clinical Characteristics and Association with Placental Anomalies*, 170(4) Br. J. Dermatol. 907, 907-13 (2014), https://goo.gl/n2hh5R. The disease causes some blood vessels to deform into benign growths, which usually resolve without treatment. *Id.*

Bucklew has a less common variant called "cavernous hemangioma." That variant is characterized by cavities in the growths that can slowly fill with blood. Resp.Ex.1 at 141–42. Some of Bucklew's growths are in his mouth, extend to his uvula, and partly obstruct his airway. They are also sensitive and bleed. They

frequently bleed at night, although he usually sleeps through it without incident. *Id.* at 143. And they bleed when he experiences significant stress. Resp.Ex.12 at 52. The growth in Bucklew's mouth has improved in recent years. Between 2010 and 2016, it shrunk nearly ten percent. Resp.Ex.1 at 172.

Unrelated to his hemangioma, some of Bucklew's "peripheral" veins in his arms are suboptimal because they are smaller, which makes it more difficult (but not impossible) to insert an IV. Resp.Ex.5 77:5-8 (stating that an IV could be placed in Bucklew's right hand). Critically, however, Bucklew never presented any evidence that he has problems with other veins. Bucklew's medical expert neglected to examine the veins in Bucklew's *legs* and never presented any evidence to suggest that those veins are suboptimal. Resp.Ex.1 at 70. Nor did Bucklew present evidence that he has any problems with his much larger "central" veins, which extend from the shoulders (subclavian), to the upper thigh and groin (femoral), and throughout the leg to the ankle (saphenous). Resp.Ex.5 96:1-10. Indeed, the district court found that—with the sole exception of the veins in his *arms*—Bucklew "concedes that there is no evidence in the Record establishing that Plaintiff has any problem with his veins." Resp.Ex.8 at 4. Missouri's lethal injection protocol permits using Bucklew's leg veins and central veins. Pet.App.145a.

It is also undisputed that none of the problems Bucklew has with his arm veins have prevented him from receiving an IV and anesthesia in the past. In recent years, Bucklew has undergone general anesthesia through an IV at least eight times. Resp.Ex.1 at 212. Bucklew asserts in his motion that he will be forced to

undergo a "cut-down" procedure to access his veins. Pet. 10–11. But he has submitted no evidence to suggest he ever had to undergo that procedure before.

His own expert, moreover, testified that medical personnel—if they had to access a central vein—would be able to do so with ease. Dr. Zivot stated that accessing peripheral veins is easier and therefore preferred. But the success rate for accessing central veins without a cut-down procedure is extraordinarily high. Even when Dr. Zivot was an inexperienced anesthesiologist, he could successfully insert an IV into a central vein 90 percent of the time on a single attempt. Resp.Ex.1 at 73. He also stated that anesthesiologists can make at least ten attempts to access a central vein, *id.* at 74, rendering the need for a cut-down statistically impossible. At that rate, the probability of success after two attempts is 99 percent. And the probability of failure after 10 attempts is 1 in 10,000,000,000. Dr. Zivot testified, moreover, that his 90 percent success rate was lower than the rate of more experienced anesthesiologists. *Id.* at 73. Dr. Zivot's testimony comports with the testimony of the State's expert witness—Dr. Antognini—that cut-down procedures are generally reserved for victims of physical trauma in emergency rooms. Resp.Ex.5 at 93–94.

II. The Execution Protocol

The State protocol for lethal injection requires medical personnel to divide five grams of pentobarbital into two syringes. Pet.App. 145–46. That dose is "ten times the amount that would be needed" to render a person unconscious. Resp.Ex.5 at 244–45. The medical personnel then insert an IV into either a peripheral or central vein. Pet.App. 145–46. Once the IV is set, personnel adjust the gurney on

which the inmate is seated "so that medical personnel can observe the prisoner's face." *Id.* Medical personnel then inject the pentobarbital dose, which is more than enough to successfully induce death. *Id.*

Although Missouri law permits use of lethal gas, the State has no protocol in place for lethal gas because that method has not been used since 1965. The State's only gas chamber not only is inoperable; it sits in a museum. Resp.Ex.19 at 49–50. Nothing in the record suggests it could readily become operational.

The State has also been unable to develop a protocol for administering execution by nitrogen because of a lack of evidence and research concerning the procedure. Unlike lethal injection, lethal gas places witnesses and medical personnel at risk in the event of leaks. *Id.* at 58. And the research on nitrogen use is incomplete because no state has ever executed anyone with nitrogen. *Id.* at 56. The Department of Corrections recently looked into the feasibility of writing a protocol for nitrogen gas, but "the research available was not sufficient." *Id.*

Bucklew's expert witness agreed with this uncertainty. He testified that "there's no way to tell if nitrogen gas would not be cruel." Resp.Ex.1 at 39. In fact, some studies of hypoxia induced by other gases suggest that hypoxia entails significant suffering. According to some studies, a person executed by hypoxia remains conscious "for several minutes"—all the while experiencing pain similar to a heart attack, causing the offender to "begin to drool, urinate, defecate, or vomit." *Gray v. Lucas*, 463 U.S. 1237, 1241 (1983) (Marshall, J., dissenting from denial of certiorari) (citing studies). Bucklew never presented evidence about whether

nitrogen would cause such pain. He mentions a study about pilots, Pet. 15, but neglects to mention that the study included nested hearsay and that the district court concluded that the study was not admissible. Resp.Ex.9 at4.

III. Procedural History

Although Bucklew did not file this lawsuit until May 2014, he informed the Eighth Circuit in 2008 that he believed lethal injection was unconstitutional as applied. He retained an expert to review his medical records. That expert opined that his condition interfered with circulation and would prolong any lethal injection, rendering the procedure painful because Bucklew was likely to bleed when subjected to stress. Resp.Ex.11 at 29–30. So Bucklew asked the Eighth Circuit for funds to hire another expert to support a clemency petition. The motion asserted, "Missouri's method of execution, *as applied uniquely to Mr. Bucklew*, may constitute cruel and unusual punishment." *Id.* at 8 (emphasis in original).

A plaintiff who challenges a method of execution must plead that a readily available alternative method exists that carries substantially less risk of unnecessary suffering. This requirement has been in place at least since 2008. *Baze v. Rees*, 553 U.S. 35 (2008), *reaffirmed by Glossip v. Gross*, 135 S. Ct. 2726, 2731 (2015). But in the decade that passed since Bucklew indicated that lethal injection is unconstitutional as applied, Bucklew took every opportunity to delay pleading an alternative method.

First, after unsuccessfully moving to intervene in a suit challenging the lethal injection protocol, *Clemons v. Crawford*, 585 F.3d 1119, 1129 (8th Cir. 2009), Bucklew brought a federal preemption challenge in 2009, seeking relief from

execution. But he chose not to bring his as-applied claim, which sought the same relief. *Ringo v. Lombardi*, 677 F.3d 793, 795–96 (8th Cir. 2012). That suit became moot when Missouri switched chemicals. *Id.*

In 2012, Bucklew raised a facial challenge to the new injection protocol but declined to raise his as-applied claim and declined to plead an alternative method of execution. *In re Lombardi*, 741 F.3d 888, 891 (8th Cir. 2014). The Eighth Circuit rejected Bucklew's complaint because he did not plead an alternative method of execution. *Id.* at 896.

On remand, the district court granted leave to amend. Bucklew declined a third time to plead an alternative method of execution. *Zink v. Lombardi*, 12-04209-CV-C-BP (W.D. Mo. May 2, 2014), Doc.439, at 7-10. The district court declined to dismiss his suit with prejudice and again granted him leave to plead an alternative method of execution. The district court ordered him to re-plead by May 9. *Id.* at 10.

Bucklew declined to do so—for the fourth time—because he "disagree[d] with the Court's ruling that Plaintiffs must propose an alternative means of execution." *Zink*, Doc.443, at 1. The district court dismissed the complaint. That suit involved the same defendants as this suit, and the dismissal constituted a final judgment on the merits. *Id.*

On May 9, the day he was supposed to amend his complaint in *Zink*, he filed this lawsuit—six years after he said he had an as-applied challenge and just 12 days before his scheduled execution. The statute of limitations is five years. Mo. Rev. Stat. § 516.120(4); *Wilson v. Garcia*, 471 U.S. 261, 266-68 (1985).

Bucklew, who was represented by the same counsel in both suits, did not request permission from the district court to split his two theories (facial and as-applied) into two different lawsuits. And he used this new lawsuit as an opportunity to yet again decline to plead an alternative method of execution—his fifth refusal. The district court dismissed the complaint for that reason. *Bucklew v. Lombardi*, 2014 WL 2736014, at *6-7 (W.D. Mo. May 19, 2014).

Bucklew's decision to file his as-applied challenge at the eleventh hour spurred a flurry of last-minute litigation. A divided panel of the Eighth Circuit stayed his execution on the ground that the requirement in *Baze* to plead an alternative method of execution did not encompass as-applied challenges, but the Eighth Circuit immediately vacated the stay en banc. *Bucklew v. Lombardi*, 565 Fed. App'x 562, 571 (8th Cir. 2014), *opinion vacated on reh'g en banc* (May 20, 2014). On the day of Bucklew's scheduled execution, this Court denied Bucklew's petition for certiorari but granted a stay "pending the disposition of petitioner's appeal." *Bucklew v. Lombardi*, 134 S. Ct. 2333 (2014).

Bucklew lost that appeal and chose not to file a petition for certiorari on the very issue he raises in this petition despite this Court granting him a two-and-a-half-month extension. Resp.Ex.15. The Eighth Circuit reaffirmed that *Baze* requires pleading an alternative method of execution in all circumstances. *Bucklew v. Lombardi*, 783 F.3d 1120, 1128 (8th Cir. 2015) (en banc). Three months later, this Court did the same when it held that "identify[ing] a known and available alternative method of execution that entails a lesser risk of pain [is] a requirement

of *all* Eighth Amendment method-of-execution claims." *Glossip*, 135 S. Ct. at 2731 (emphasis added).

The Eighth Circuit then granted Bucklew another chance to amend his complaint. Although Bucklew's argument about *Baze* was wrong, "it was not patently obvious the plaintiff could not prevail," so the Eighth Circuit held that the district court erred in dismissing the complaint *sua sponte*. *Bucklew*, 783 F.3d at 1127. The Eighth Circuit also indicated that Bucklew's suit is likely time-barred because he admitted in 2008 that he had an as-applied claim, but the court declined to rule on that issue because Bucklew was entitled to amend his complaint. *Id.* at 1128–29.

Given another opportunity to plead an alternative method of execution, Bucklew remained steadfast in his refusal—his sixth. Bucklew asserted that he only had to make "allegations concerning [his] medical condition" and that "[i]t is up to the State" to identify alternative methods. *Bucklew*, Doc.30, at 35.

A month later, Bucklew filed his second amended complaint. He again refused to properly plead. This time, he stated that he would not plead an alternative method until the district court ordered substantial medical evaluations. *Bucklew*, Doc.37, at 7. When Defendants moved to dismiss, Bucklew sought leave to amend. The district court granted leave but required that he re-plead within three days in the light of his delay. *Bucklew*, Doc.45, at 1-2.

Bucklew again failed to plead an alternative method of execution—for the eighth time. The district court stated that "[t]here are certainly reasons not to

permit" amendment, notably Bucklew's failure to "plead an alternative despite the Court ordering him to do so." *Bucklew*, Doc.52, at 10-11. The district court nonetheless granted Bucklew "one last opportunity" but made it "extremely clear" that it was the "last time Bucklew will be given the opportunity." *Id.* at 1, 11.

Facing threatened dismissal with prejudice, Bucklew finally—on his ninth attempt—alleged nitrogen-induced hypoxia as an alternative method of execution. Resp.Ex.12. He filed that complaint, his fifth in this suit, on October 13, 2015—seven years after he first announced that he believed all lethal injection protocols were unconstitutional as applied.

IV. Bucklew's Evolving Theories

Bucklew no longer argues the claim specified in his complaint. The operative complaint stated that "*any* means of lethal injection," no matter what chemical is used, "will almost inevitably lead to a prolonged and tortuous execution." Resp.Ex.12 at 2. It further stated that he has difficulty breathing and that the stress of any execution would exacerbate that problem. *Id.* ¶¶ 1, 103, 128, 146. What made lethal injection worse than lethal gas, he asserted, was that "the lethal drug will not circulate as intended, delaying suppression of the central nervous system and prolonging the execution." *Id.* ¶ 6. But Bucklew's medical records conclusively undermined this theory. Even Bucklew's expert conceded that he "ha[d] no evidence" to support that theory. Resp.Ex.1 at 66.

Bucklew then shifted theories and asserted that if he lies "completely prone," Resp.Ex.12 ¶ 128, his uvula will block his throat. But as the panel determined,

Bucklew laid fully supine for more than an hour while undergoing an MRI. Resp.Ex.10 at 9.

When the MRI procedure proved he could lie flat, his claim evolved yet again. Before the Eighth Circuit, he asserted that he can lie fully supine only if he can swallow (to move his uvula). Resp.Ex.18 at 5. He claimed that at some point a "twilight stage" will occur where pentobarbital will render him immobile before suppressing pain sensation. He asserted that he will be unable to swallow during this time and therefore will be able to feel his uvula blocking his throat. Resp.Ex.10 at 9. Bucklew never amended his complaint to assert the existence of a "twilight stage."

In his current petition, Bucklew's claim evolves yet again. Faced with an affidavit that unambiguously states that he will not lie fully supine, he switches his theory and now asserts that his uvula will block his throat even if he is not lying fully supine. Pet. 12.

V. Bucklew Fails to Present Quantifiable Evidence for Either *Glossip* Element

Contrary to Bucklew's present contention, he submitted no evidence to suggest how long the "twilight stage" might last. Relying entirely on an article about pentobarbital administration in horses, Dr. Zivot identified a time interval of 52-240 seconds but expressly stated that this interval referred to how long it would take for Bucklew's brain to stop producing detectable brain waves. Resp.Ex.1 at 85-86. He never identified when pentobarbital would render Bucklew immobile or when it would render him insensate to pain. He stated that the "twilight stage"

would occur sometime "before" Bucklew's brain stopped producing detectable brain waves, *id.* at 81, and he admitted that he had no idea how long that stage might last, *id.* at 84.

Bucklew misconstrues the record when he asserts that Dr. Antognini "thinks Bucklew will experience a sense of suffocation for 20-30 seconds." Pet. 26. In reality, Dr. Antognini testified that the twilight stage would not occur at all. Resp.Ex.5 at 208:5-11. He also testified that, in a lethal injection, Bucklew would cease producing brain waves in as little as 20-30 or as long as 60 seconds. Resp.Ex.5 at 200:10-12.

Neither expert offered any quantifiable testimony about how quickly it would take lethal gas to operate. Dr. Zivot testified that "there's no way to tell if nitrogen gas would not be cruel." Resp.Ex.1 at 39. Bucklew takes unjustified liberties with the record and asserts that Dr. Antognini testified that lethal gas would take 20-30 seconds. Pet. 5. Not so. Dr. Antognini studiously avoided providing a quantifiable estimate because, in part, he had no knowledge of how quickly a gas mask or chamber could be filled with gas and nobody in the United States has ever executed a person with nitrogen. Resp.Ex. 5 at 234:20-21. Dr. Antognini gave only the vague, unquantified response that lethal gas would occur relatively "quickly." Resp.Ex.5 at 232:1-6.

VI. The District Court Decision

The district court granted summary judgment for Defendants. It had no trouble rejecting Bucklew's pleaded claim, holding that "the Record confirms that Plaintiff's condition will not affect the flow of chemicals." Resp.Ex.8 at 4.

The district court also rejected potential arguments about Bucklew's veins. It found that Bucklew never presented legal arguments about his veins. *Id.* at 7. And it noted that Bucklew conceded that no problems existed with his central veins, which Defendants can use to insert the necessary IV. *Id.* at 4. It further determined that arguments about Bucklew's veins would fail—if he had raised them—because the asserted risks were speculative, not quantified. *Id.* at 8.

The district court then considered Bucklew's "twilight stage" theory even though Bucklew never pleaded that the stage exists. It assumed, without deciding, that a triable issue existed about the first *Glossip* element: whether lethal injection would cause substantial, unnecessary suffering. *Id.* at 8–9. It then granted summary judgment in Defendants' favor because Bucklew failed to create a triable dispute for whether nitrogen-induced hypoxia will substantially reduce suffering. *Id.* at 10. It found that Bucklew presented no evidence concerning how long it would take for lethal gas to operate. *Id.* at 11. It also rejected the argument, which Bucklew presents here in his petition, that Bucklew could rely on Dr. Antognini's vague statement about lethal gas. The district court determined that Dr. Antognini's vague, unquantified statement that lethal gas would occur "quickly" did "not support the proposition that nitrogen hypoxia would cause unconsciousness sooner than pentobarbital." *Id.* Bucklew had to establish concrete numbers concerning lethal gas for the court to compare lethal injection to lethal gas; he failed to do so. *Id.*

The district court also granted summary judgment for a second reason. Bucklew's new theory required proving that he had to be fully supine. But even assuming he had to be supine to insert the IV, Bucklew failed to introduce evidence that Defendants could not elevate him after IV insertion. Resp.Ex.9 at 3. The district court did not rule on the procedural issues Defendants presented. Resp.Ex.8 at 1 n.3.

The district court rejected Bucklew's attempt to obtain irrelevant discovery. Despite obtaining "extensive discovery," Resp.Ex.10 at 11, Bucklew tried to discover details about the "development" of the execution protocol; information about procurement, prescriptions, attempts to obtain chemicals, inventory, expiration dates; information about maintenance, storage, and security of chemicals; and not just the qualifications of the medical personnel who will perform the procedure, but also their identities. Pet.App. 47a–52a. The district court denied this request because most of it was irrelevant. Bucklew pleaded that *every* means of lethal injection was unconstitutional, even if he had a world-class medical team and regardless of Defendants' procedures. *Id.* The district court allowed him to discover information about the identity of the chemicals to be used, their expected effect, and the general composition of the medical team and their functions. *Id.* But the district court refused to permit Bucklew to go on a fishing expedition to discover the identities and qualifications of the medical team when he asserted that lethal injection would be unconstitutional even if the medical team was altered. *Id.*

VII. The Panel Decision

A panel of the Eighth Circuit affirmed. Resp.Ex.10. The court focused solely on summary judgment issues and declined to address procedural issues. *Id.* at 3 n.2.

The panel noted that Bucklew admitted in his complaint that Defendants "offer[ed] to adjust the gurney so that Mr. Bucklew is not lying completely prone." *Id.* at 7. Because Defendants stated the same in their answer, the panel determined that the pleadings established that Bucklew will not be fully supine; the gurney will be adjusted so that he is "in a proper position." *Id.* at 7 n.3. Reviewing the record, the panel also noted that Bucklew had been under general anesthesia at least eight times in recent years and had undergone general anesthesia *while* lying supine. *Id.* at 9.

For two independent reasons, the panel affirmed the grant of summary judgment. First, Dr. Antognini never quantified how long it might take to employ lethal gas. He instead stated that both lethal gas and lethal injection would occur relatively "quickly." *Id.* at 12. Because Bucklew failed to submit sufficient evidence comparing the speed of lethal execution to the speed of lethal gas, Bucklew's claim failed. *Id.*

The panel affirmed for a second independent reason. Bucklew's claim depended on establishing that he was sure or very likely to be forced to lie fully supine during lethal injection. *Id.* at 13. But that "argument lack[ed] factual support" because the pleadings established that Defendants agreed not to require Bucklew to lie supine. *Id.* Bucklew's insistence that he would lie supine was unsupported "speculation." *Id.* at 14.

The dissent disagreed on the application of the summary judgment standard but acknowledged that Bucklew would face substantial hurdles if the case ever went to trial. The dissent noted that Bucklew presented his evidence through his expert witness but that the record revealed plenty of reasons to conclude that the witness lacked credibility: Dr. Zivot had repeatedly stated that he categorically opposes lethal injection; his testimony about the "twilight stage" appeared to contradict the article on which he relied; and he has repeatedly issued "inaccurate predictions of calamities at prior executions." *Id.* at 19.

The dissent believed a dispute of fact existed about how long lethal gas would take. Even though Dr. Antognini never quantified an estimate, the dissent stated that it could infer that Dr. Antognini believed lethal gas would take 20–30 seconds. *Id.* at 20. The dissent also stated that a factfinder could determine that Bucklew had to lie fully supine because some previous inmates had and the dissent could not locate evidence that the State "would alter its ordinary procedures." *Id.* at 19.

The Eighth Circuit denied rehearing en banc. Nine judges, including the judge who dissented from the panel opinion, agreed that Bucklew should not receive a stay. Only one judge would have granted a stay. Resp.Ex.17.

SUMMARY OF THE ARGUMENT

Bucklew is not entitled to a stay because he has substantially delayed litigation. In 2008, he told the Eighth Circuit that he believed all forms of lethal injection were unconstitutional as applied in the light of his medical condition. But he waited six years to bring that claim and did so just twelve days before his first

scheduled execution. He also expressly refused to obey the district court's orders to submit a proper complaint solely because, as he stated in one pleading, he "disagree[d] with the Court's ruling." In just this suit, he has submitted *five* complaints. He has also continually shifted his theory, asserting new allegations every time the evidence undermined his old ones. Bucklew also could have asked this Court to review his third question presented three years ago when the Eighth Circuit ruled that he had to plead an alternative method of execution. He instead chose to wait until the eve of his scheduled execution to present that claim.

Bucklew also cannot establish a significant likelihood of success on the merits, so this Court should reject his motion for a stay and petition for certiorari. Bucklew argues that the already "extensive discovery" should have been even more extensive and that the district court abused its considerable discretion when it prohibited Bucklew from discovering information about the qualifications of the medical team for inserting IVs. But that information was irrelevant because Bucklew expressly pleaded that qualifications of the medical team had no bearing on whether lethal injection would be unconstitutional. Bucklew's argument also fails because he centers his discovery argument on the contention that he will suffer when the medical team attempts to secure an IV. But as the district court held, he never preserved that claim. The claim also lacks any merit because he conceded he has no problems with his veins other than his arm veins, and his own expert testified that the medical team could access his central veins at an overwhelmingly high success rate. His expert also neglected to examine the veins in Bucklew's legs.

Bucklew's nondiscovery claim rests on a series of assertions—all of which he must prove. Bucklew's medical condition has caused his uvula to swell. He asserts that when he lies fully supine, gravity causes his uvula to block his airway, which ordinarily is not a problem because he suggests he can swallow to move it. But he asserts that at some point during pentobarbital administration, there will occur what he calls a "twilight stage": a period when pentobarbital will immobilize him—preventing him from swallowing—but where he can still feel pain. He argues that he will experience a choking sensation during this period—if he is forced to lie fully supine—and that this period will last so long that he experiences substantial, unnecessary pain. He asserts that he should instead be executed by nitrogen-induced hypoxia, which he contends will be substantially less painful. Bucklew's claim fails if he cannot prove every assertion.

Bucklew cannot prevail on the merits for numerous reasons. First, he cannot establish that Defendants will force him to lie fully supine. As the panel opinion correctly determined, all parties agree that Defendants are able and willing to adjust the gurney so that Bucklew is not lying fully supine. To the extent the dissenting opinion determined that some ambiguity existed in the record on this issue, Defendants cured that ambiguity by submitting an affidavit affirming that Bucklew will not be forced to lie fully supine. Resp.Ex.13.

Second, Bucklew never presented any evidence to suggest how long the "twilight stage" lasts. Dr. Zivot testified that it might take 52–240 seconds for Bucklew's brain to cease producing detectable brain waves—what some physicians

call "brain death." But he specifically testified that this interval did not concern how long the "twilight stage" would last. He said the twilight stage would occur "before" brain waves ceased and that he had no way of knowing how long the twilight stage might last. But without evidence of the duration of that stage, no court could determine whether Bucklew would experience substantial, unnecessary pain, or whether he would merely have to hold his breath for a second or two, if at all.

Third, Bucklew presented no quantifiable evidence about the time it would take for lethal nitrogen to operate. Bucklew cannot rely on the statement by Dr. Antognini that lethal *injection* would take as little as 20-30 seconds or as long as 60 seconds as quantitative evidence for how long that expert believes lethal gas would take. Defendants' expert said he had no way of knowing how quickly gas would be introduced into a chamber or mask, so he studiously avoided providing quantifiable evidence estimates lethal nitrogen. He offered only the vague, unquantified statement that execution by lethal gas would occur "quickly." Without quantifiable evidence, no court can determine whether lethal gas "significantly reduce[s] a substantial risk of severe pain." *Glossip*, 135 S. Ct. at 2737. In the light of Bucklew's failure to present evidence on critical issues and his failure to preserve arguments, summary judgment was warranted on numerous independent grounds.

Even if this Court remanded for the district court to conduct a bench trial, Bucklew would still be unlikely to prevail. Not only does he lack evidence for crucial issues, but the evidence he presented is weak. Bucklew's arguments rely on evidence submitted by Dr. Zivot. But as even the dissenting opinion in the Eighth

Circuit suggested, Dr. Zivot lacks credibility. He has admitted that he is categorically opposed to lethal injection because that procedure has harmed his career, he is willing to testify that Bucklew faces an unconstitutional procedure regardless of his medical condition, his recent calamitous predictions of suffering in other executions have all proven inaccurate, and his testimony is clearly erroneous. If this case were to proceed to a bench trial, the court would likely rule against Bucklew. This case, moreover, contains numerous procedural issues that no court has yet addressed but that the Eighth Circuit, en banc, has suggested likely defeat Bucklew's suit.

Granting certiorari is also unwarranted because Bucklew has not raised an important question of federal law. His first question presented is unpreserved. His second merely asserts misapplication of the well-known summary judgment standard. And he had the opportunity three years ago to raise his third question when the Eighth Circuit ruled that he had to plead an alternative method of execution. He instead chose to delay until the eve of his execution.

REASONS FOR DENYING THE MOTION AND PETITION

I. Bucklew Could Have Brought This Claim Sooner.

This Court should deny a stay because Bucklew unduly delayed litigation. There exists "a strong equitable presumption against the grant of a stay where a claim could have been brought at such a time as to allow consideration of the merits without requiring entry of a stay." *Hill*, 547 U.S. at 584. Bucklew told the Eighth Circuit in 2008 that lethal injection was unconstitutional as applied to him. But he waited six years before bringing this suit and did so just twelve days before his

initially scheduled execution. And despite having the opportunity to add this claim to his facial challenge, he brought this suit separately without seeking the district court's permission. Even if this Court thinks this case is not time-barred, Bucklew's delay still weighs against granting a stay. Bucklew, moreover, repeatedly declined to plead an alternative method of execution. This suit concerns his *fifth* complaint. Time after time, he filed defective pleadings solely because he "disagree[d] with the Court's ruling," *Zink*, Doc.443, at 1, and he filed a sufficient complaint only after the district court warned him that it would dismiss with prejudice. Resp.Ex.10 at 7.

Bucklew has also continually switched his legal theory. For years, he asserted that his condition would interfere with circulation, prolonging an execution. He switched from that theory when the evidence undermined it. His theory that a "twilight stage" exists appears nowhere in his complaint. He has also abandoned—just now—his assertion that his claim rests on his being forced to lie fully supine.

Bucklew also delayed raising his third question presented. Bucklew asks this Court to consider whether a plaintiff must plead an alternative method of execution in as-applied challenges to execution protocols. But he had an opportunity to raise that issue three years ago and chose not to. The Eighth Circuit expressly held that Bucklew had to plead an alternative method of execution even though his claim is as applied. *Bucklew*, 783 F.3d at 1128. This Court granted him a two-and-a-half-month extension to file a petition for certiorari. Resp.Ex.15. But Bucklew chose instead to wait three years and ask this Court to review that question on the eve of

his execution. Bucklew's decision to refrain from filing a petition for certiorari until now reveals that the petition is nothing more than "a tactic for delay." *Nelson*, 541 U.S. at 648.

II. Bucklew Has Not Established Likelihood of Success on the Merits.

To succeed on the merits, Bucklew will have to prove first that his so-called "twilight stage" exists and will last so long that he is "*sure or very likely*" to experience substantial, unnecessary suffering. *Glossip*, 135 S. Ct. at 2737. He then must prove that nitrogen-induced hypoxia "in fact significantly reduce[s] a substantial risk of severe pain." *Id.* (alteration in original). Bucklew has no likelihood of establishing either element or of establishing likelihood of success on his separate discovery claim.

A. Bucklew's discovery argument is unpreserved and meritless.

Despite the district court's allowing "extensive discovery," Resp.Ex.10 at 11, Bucklew centers his petition on the assertion that he did not receive enough. He seeks additional discovery concerning the qualifications of the medical team, asserting that he needed to probe the qualifications of the medical team to insert an IV. Even the dissenting judge would not have granted this request, and his claim fails for numerous reasons.

First, that argument is not preserved. The district court held that Bucklew failed to raise *any* legal arguments concerning his veins. Resp.Ex.8 at 7. Second, his claim that the medical team will have problems inserting an IV is speculative. Bucklew's expert admitted that he neglected to examine the veins in Bucklew's legs, so Bucklew has submitted no evidence to suggest that those veins are inadequate.

Resp.Ex.1 at 70. Indeed, as the district court found, other than with the veins in his arms, Bucklew "concedes that there is no evidence in the Record establishing that Plaintiff has any problem with his veins." Resp.Ex.8 at 4. At least eight times in recent years, Bucklew has undergone intravenous anesthesia without incident. Resp.Ex.10 at 9. The panel opinion correctly determined that his arguments are speculative. *Id.* at 14–15.

Bucklew's concession also demonstrably refutes his repeated assertion that he will have to experience a "cut-down" procedure. It is undisputed that Bucklew has no problems with his central veins, and Bucklew's own expert testified that it was statistically impossible—given the perfect state of Bucklew's central veins—that the medical team would repeatedly fail to gain access using normal means. He testified that even inexperienced anesthesiologists can access a central vein using normal means 90 percent of the time on any single attempt, which renders the probability that the medical team will fail twice a meager 1 percent. Resp.Ex.1 at 73–74. Bucklew cannot establish that the medical team is "sure or very likely" to have problems with his veins. Any problem would, by definition, be an "isolated mishap" that "while regrettable, does not suggest cruelty." *Baze*, 553 U.S. at 50.

Bucklew's attempt to gain additional discovery fails for yet another critical reason: he pleaded that the qualifications of the medical team had no bearing on whether lethal injection would be unconstitutional. Bucklew never pleaded that any member of the medical team lacked proper qualifications. He instead pleaded that lethal injection was unconstitutional regardless of who was on the medical team.

The district court properly concluded that Bucklew could not go on a fishing expedition without pleading that the qualifications of the medical team were pertinent to his claim. Pet.App.51a. At the very least, that information is not "proportional to the needs of the case." Fed. R. Civ. P. 26(b)(1). It was well within the district court's considerable discretion to deny access to unnecessary information especially when it had already granted Bucklew "extensive discovery," Resp.Ex.10 at 11, including information about the medical team and the effects of pentobarbital on the human body. Pet.App.48a–52a.

B. Bucklew will not lie fully supine, so a critical factual predicate of his claim fails.

As both the panel and the dissent recognized, critical to Bucklew's "twilight stage" theory is the assertion that he will be forced to lie fully supine during a lethal injection. Resp.Ex.10 at 13, 19.

The panel correctly determined that Defendants submitted evidence that they are able and willing to adjust the gurney. As the panel held, it is undisputed based on the pleadings that Defendants have "offer[ed] to adjust the gurney so that Mr. Bucklew is not lying completely prone." *Id.* at 7 & n.3. The dissent disagreed but acknowledged that Defendants are entitled to judgment if evidence exists that the State will not force Bucklew to lie fully supine. *Id.* at 19.

As the panel correctly held, the record contains sufficient evidence to establish that Bucklew will not lie fully supine, but to the extent some jurists could determine that the record includes ambiguity, Defendants submitted an additional affidavit to the Eighth Circuit in response to Bucklew's stay motion. That affidavit

affirms that Bucklew will not be forced to lie fully supine. Resp.Ex.13. And Bucklew never submitted contrary evidence that Defendants would be unable to ensure that he will not lie fully supine. Bucklew's claim—which depends on the assertion that he will lie fully supine—fails.

Bucklew's evolving theories evolve again. Confronted with this affidavit, Bucklew now asserts that lying supine is immaterial to his claim. Pet. 12. This new assertion is a volte-face from what he argued before the Eighth Circuit. Before that Court, he centered his claim on the assertion that he would have to lie fully supine. In his opening brief, he declared, "When Bucklew is in a *fully supine* position, his uvula is pulled, by force of gravity, back into his airway thereby effectively blocking airflow." Resp.Ex.18 at 5 (emphasis added). He stated that he must manage his airway "while in the supine position." *Id.* at 5. His "be[ing] forced to lie supine," he asserted, is what "result[s] in choking, gagging, hemorrhaging, and ultimately suffocation." *Id.* at 45. He pressed that he was entitled to additional discovery because, allegedly, it would "definitively establish that he will have to be supine." *Id.* at 27. He also stated that he uses pillows to sleep at an "incline" to avoid being fully supine, Resp.Ex.18 at 37, but now contradicts his statement by asserting that he sleeps "upright," Pet. 9. As the Eighth Circuit recognized, Bucklew's theory was centered on the assertion that he would have to lie fully supine. Resp.Ex.10 at 13. This Court should not grant a stay of execution or a writ of certiorari on Bucklew's brand-new theory.

C. Bucklew failed to present evidence concerning how long the "twilight stage" might last.

Bucklew attempted to establish the first *Glossip* element by asserting that a period of time exists when pentobarbital will have immobilized him but will not yet have rendered him insensate to pain. He contends that he will experience choking during that period if he is lying fully supine because he will be unable to consciously swallow. Undoubtedly, he created a triable issue for whether this "twilight stage" exists.

But he failed to present any evidence about how long this stage might last. Bucklew argues that when Dr. Zivot identified a time interval of 52-240 seconds, he was referring to the duration of the twilight stage. Pet. 13. But the record refutes that contention. Dr. Zivot referred solely to the duration until Bucklew stopped producing detectable brain waves—what some physicians call "brain death." In his deposition, Dr. Zivot stated that he derived the interval from a single study. Resp.Ex.1 at 85. He further stated that the study "recorded a range of as short as fifty-two seconds and as long as about two hundred and forty seconds before they see *isoelectric EEG*." *Id.* at 86 (emphasis added). An EEG test measures brain waves on a scale of 0 to 100, with 100 referring to patients who are fully awake. Jay w. Johansen, et al., *Development and Clinical Application of Electroencephalographic Bispectrum Monitoring*, 93 Anesthesiology 1336, 1336 (2000). Resp.Ex.16. A score of 0—an "isoelectric EEG"—refers to a patient who emits no detectable brain activity. *Id.* Dr. Zivot expressly stated that it would take 52-240 seconds for Bucklew to

experience an "isoelectric EEG" or "complete cessation" of detectable brain waves. Resp.Ex.1 at 86.

But Dr. Zivot never testified that the twilight stage, if it occurs, would last the same length of time. Just the opposite. It is well-established that a person becomes insensate to pain when they emit an EEG score of between 40 and 65—far before the isoelectric point. Resp.Ex.16 fig.1. Consistent with this medical understanding, Dr. Zivot testified that the twilight stage, if it occurred, would occur "before" the isoelectric point. Dr. Zivot admitted he could not pinpoint when the "decreased brain activity" of the isoelectric point would occur, only that it would occur "at some point" during the 52-240 second interval. Resp.Ex.1 at 81. He then explained that the twilight stage would occur "before then." *Id.* When asked to pinpoint when it might occur, Dr. Zivot admitted he could not and responded that "there's a wide range of time that could be." *Id.* at 84. Dr. Zivot never identified when pentobarbital might immobilize Bucklew, nor when pentobarbital would render him insensate to pain.

The record therefore lacks any evidence for how long the twilight stage would last if it occurred. Yet Bucklew's claim rests on establishing that the stage is so long that it will cause him to experience substantial, unnecessary suffering. Without this evidence, Bucklew cannot establish that lethal injection is "sure or very likely to cause serious illness and needless suffering," creating a "substantial risk of serious harm." *Glossip*, 135 S. Ct. at 2737. If the twilight stage lasts just two or three

seconds, for example, then it is no more intolerable than the universal experience of holding one's breath for several seconds.

Even if Dr. Zivot was referring to the length of the twilight stage, not—as he plainly was—to the entirely different isoelectric point, Bucklew still could not establish a *genuine* dispute of material fact on the length of the twilight stage. Clearly erroneous evidence does not create a triable issue. "When opposing parties tell two different stories, one of which is blatantly contradicted by the record, so that no reasonable jury could believe it, a court should not adopt that version of the facts for purposes of ruling on a motion for summary judgment." *Scott v. Harris*, 550 U.S. 372, 380 (2007).

Dr. Zivot's testimony "blatantly contradicted" the article on which he rested his testimony. Dr. Zivot rested his testimony solely on a study about horse euthanasia. Resp.Ex. 1 at 85. That study never mentions anything remotely similar to a "twilight stage." It concerns only the time until the isoelectric point—when the horses ceased producing detectable brain waves. Dr. Zivot testified that the study reported that it takes *between* 52 and 240 seconds for pentobarbital to cause an isoelectric EEG. *Id.* at 86. But the study reports that every subject experienced an isoelectric EEG "*within* 52 seconds." Resp.Ex.4 at 5 (emphasis added). In fact, only one horse lasted that long. The median time was 18 seconds; the quickest, 2 seconds. *Id.* The latter number, 240 seconds, refers not to pentobarbital but—oddly enough—to lethal gas. The article references a finding from a different study that gas-induced hypoxia did not cause an isoelectric EEG for 240 seconds. *Id.* at 8.

Because the sole article on which Dr. Zivot relied blatantly contradicts his assertion that it might take pentobarbital up to 240 seconds to render a person what some call "brain dead," the most one can construe from his testimony is that it might take up to 52 seconds to reach the isoelectric point. *See Scott*, 550 U.S. at 380.

D. The Eighth Circuit correctly determined that the record lacks quantifiable evidence to compare nitrogen-induced hypoxia to lethal injection.

To meet the second *Glossip* element, Bucklew must establish an alternative method of execution that is "feasible, readily implemented, and in fact significantly reduce[s] a substantial risk of severe pain." *Glossip*, 135 S. Ct. at 2737 (citation omitted). Both the district court and the panel held that Bucklew failed to establish this element because he never presented evidence for how long execution by nitrogen-induced hypoxia would take. For example, Dr. Zivot testified that "there's no way to tell if nitrogen gas would not be cruel." Resp.Ex.1 at 39.

The panel opinion correctly held that Bucklew needed to present comparative evidence. Resp.Ex.10 at 12. Bucklew rests his argument on the assertion that pentobarbital might take 52-240 seconds for him to cease producing detectable brain waves. That interval is irrelevant to Bucklew's claim for the reasons stated above. But even if it were relevant, without quantifiable evidence about how long nitrogen-induced hypoxia might take, no court could compare the methods. *Id.*

Bucklew takes unjustified liberties with the record when he incorrectly asserts that it is "undisputed that lethal gas would cause him to experience a sense of suffocation for, at most, 20-30 seconds." Pet. 18. To the contrary, no quantifiable evidence about the duration of execution by lethal gas exists in the record.

Bucklew asks this Court to put words into Dr. Antognini's mouth that he never said. Dr. Antognini testified that nitrogen-induced hypoxia could take as little as 20-30 seconds or as long as 60 seconds. Resp.Ex.5 at 200:10-12. He also stated that lethal injection and lethal gas would both render a person unconscious "quickly." Resp.Ex.5 at 232:1-6. Bucklew argues that this Court should extrapolate from that exchange that Dr. Antognini believes nitrogen-induced hypoxia would render a person unconscious within 20-30 seconds and that this Court should compare that alleged evidence to Dr. Zivot's testimony that lethal injection would take 52-240 seconds. But that argument fails for numerous reasons.

First, Dr. Antognini never quantified the duration of execution by lethal gas. He stated only that both lethal injection and lethal gas would occur "quickly." Dr. Antognini did *not* say that lethal gas would occur faster than lethal injection. He left his assertion vague and undefined. This Court cannot extrapolate quantifiable evidence where none exists. Indeed, Dr. Antognini was extremely careful to avoid quantifying a duration for lethal gas. He cautioned that his testimony about lethal gas was not "as well founded as some of [his] other conclusions." Resp.Ex.5 at 236:3-4. In particular, he stated that he could not quantify the duration of nitrogen-induced hypoxia because he had no way of knowing "how quickly the gas is introduced." *Id.* at 234:20-21. In fact, he based his opinion in part on how *cyanide* gas is used because nitrogen-induced hypoxia has never been used for an execution in the United States. *Id.* at 233:5. It would be error to infer from Dr. Antognini's

statement quantified evidence about nitrogen-induced hypoxia when Dr. Antognini studiously avoided presenting quantified evidence.

Second, even if this Court adopted Bucklew's argument that Dr. Zivot thought execution by lethal gas would take the *same* amount of time as execution by lethal injection, Bucklew's argument would still fail. If Dr. Antognini is correct that it would take up to 52 seconds for lethal injection to cause an isoelectric EEG—what some refer to as "brain death"—and Dr. Antognini is correct that execution by lethal gas would take the same amount of time as execution by lethal injection, then Bucklew's own argument would reveal only that lethal gas and lethal injection take the same amount of time.

Third, Bucklew presents a skewed version of the record when he asserts that Dr. Antognini suggested that lethal injection would *always* take 20-30 seconds to render a person unconscious. Dr. Antognini instead testified that lethal injection could take as little as 20-30 seconds but as long as 60 seconds. Resp.Ex.5 at 200:10-12. Dr. Zivot's statement that execution by lethal injection could take as long as 240 seconds is clearly erroneous for the reasons stated above. Dr. Zivot's testimony is thus limited to the assertion that lethal injection would cause Bucklew to cease producing detectable brain waves "within 52 seconds." Resp.Ex.4 at 5. So even if Bucklew is correct that this Court can create quantifiable evidence about the duration of lethal gas when Dr. Antognini never submitted any such evidence, Bucklew's argument still fails. Under Bucklew's argument, Dr. Antognini testified that execution by lethal gas could take *longer* than Dr. Zivot's estimate for lethal

injection. The evidence in the record is insufficient to determine whether Bucklew would be "sure or very likely" to experience a substantially less painful execution by lethal gas. *See Glossip*, 135 S. Ct. at 2737.

E. Bucklew's claim rests on evidence provided by an expert witness who lacks credibility.

If this Court remands for a trial, Defendants will more than likely prevail. The only evidence Bucklew presented for his critical "twilight stage" theory came through his expert witness. But as even the Eighth Circuit panel dissent suggested, Dr. Zivot lacks credibility. Resp.Ex.10 at 19.

In particular, success on the first *Glossip* element requires Bucklew to prove that the "twilight stage" will last between 52 and 240 seconds. For the reasons stated in Part II.C, Dr. Zivot's testimony refers only to the duration until detectable brain waves cease, not how long the "twilight stage" might last. In any event, his testimony lacks credibility because he misrepresents the article on which he relies.

Dr. Zivot also lacks credibility because he admitted that his testimony was not based on Bucklew's medical condition. He instead asserted that he believes "lethal injection by design will be cruel in every circumstance." *E.g.*, Resp.Ex.1 at 105; *accord id.* at 17-18 (stating that "[l]ethal injection was never anything other than a façade for punishment").

Dr. Zivot's categorical assumption that lethal injection would be cruel even absent Bucklew's medical condition conforms to erroneous affidavits he filed in other cases. At least three times, he has opined that an inmate would suffer excruciating pain by lethal injection. *Id.* at 99–101. But he admits that no evidence

exists that *any* of them, all of whom have been executed, experienced such pain. *Id.* In one instance, he testified that an inmate "will suffer an excruciating death" because the inmate was overweight. *Id.* at 42. But Dr. Zivot admits that no evidence suggests the inmate experienced distress. *Id.* at 99–101. Indeed, that inmate sang "Amazing Grace" before quickly becoming unconscious. *Id.* at 46–47.

Dr. Zivot also lacks credibility because he has dramatically changed his position on how quickly pentobarbital renders a person unconscious. He testified here that pentobarbital will cause a person to stop producing detectable brain waves no sooner than 52 seconds and that it might take as long as 240 seconds. But in an article he wrote four years ago, he stated that the first time he witnessed use of chemicals like pentobarbital "was nothing short of astounding" because the chemical, "*in a moment*, rendered the patient unconscious." *Id.* at 256 (emphasis added). In that article, Dr. Zivot also admitted that he categorically opposes lethal injection because the use of lethal injection had interfered with his career. He declared frustration that he trained for "thousands of hours" to obtain certification to use certain chemicals, only for pharmaceutical companies to discontinue manufacturing those chemicals in response to anti-death penalty activists. *Id.*

In short, Dr. Zivot has admitted that he categorically opposes lethal injection because it has interfered with his career, his testimony has been proven inaccurate each time he testified that a person would experience substantial pain from execution, and his testimony about the time interval relies solely on a clearly

erroneous reading of an article. Dr. Zivot's lack of credibility weighs substantially against Bucklew's likelihood of success on the merits.

F. Bucklew Is Likely to Lose on Procedural Grounds.

Even if Bucklew could prevail on the merits, he is substantially likely to lose on the procedural issues. In 2008, Bucklew retained an expert to review his medical records. That expert opined that all lethal injection would be unconstitutional because of Bucklew's condition. Resp.Ex.11 at 2, 29. Bucklew chose not to file suit. Six years later, he retained another medical expert, who opined the same thing. Resp.Ex.12 ¶¶ 15, 77–83. That time, just twelve days before execution, he filed suit. No court has yet ruled on the procedural issues, but the Eighth Circuit, en banc, stated that there exists a substantial likelihood that Bucklew's suit is time-barred by the five-year statute of limitations. *Bucklew*, 783 F.3d at 1129.

Similarly, Bucklew's suit is likely barred by res judicata. "[A] final judgment on the merits of an action precludes the parties or their privies from relitigating issues that were or could have been raised in that action." *Allen v. McCurry*, 449 U.S. 94, 94 (1980). Bucklew argued before the panel that his cause of action arose in April 2014. Resp.Ex.14 at 4. Even assuming his contention is true, his lawsuit in *Zink* was ongoing at that time. He could have raised this claim in *Zink*. In fact, he filed this suit on the day he was required to file an amended pleading in *Zink*. But he never asked the district court for permission to split his claims even though he had the same counsel in both actions. His claim is precluded.

III. Reviewing any of the questions presented would be unwarranted.

This Court has already held that "identify[ing] a known and available alternative method of execution that entails a lesser risk of pain [is] a requirement of *all* Eighth Amendment method-of-execution claims." *Glossip*, 135 S. Ct. at 2731 (emphasis added).

Bucklew asks this Court to carve out an exception to the holding in *Glossip* that he plead an alternative method of execution because he raises an as-applied challenge. But Bucklew had an opportunity to raise this issue before this Court three years ago. The Eighth Circuit expressly held that Bucklew had to plead an alternative method of execution even though his claim is as applied. *Bucklew*, 783 F.3d at 1128. But Bucklew chose not to file a petition for certiorari even though this Court granted him a two-and-a-half-month extension. Resp.Ex.15. Bucklew's decision to save that petition for certiorari until now reveals that the petition is "a tactic for delay." *Nelson*, 541 U.S. at 648.

Bucklew has also failed to establish any compelling reason why this Court should adopt his carveout. Bucklew admits that any suffering he experiences will be accidental. Pet. 3. That admission defeats his claim because a challenge under the Eighth Amendment requires a *mens rea*. Bucklew can prevail only if no prison official could claim they were "subjectively blameless." *Glossip*, 135 S. Ct. at 2737. Any harm he might suffer, "while regrettable, does not suggest cruelty." *Baze*, 553 U.S. at 50.

Reviewing the other questions presented is similarly unavailing. Bucklew's discovery argument is not preserved and is also meritless. Bucklew second question

presented asserts that the Eighth Circuit misapplied standards for summary judgment. But "[t]he standard for granting summary judgment is well-known" and needs no correction. *E.g.*, *McMunn v. Babcock & Wilcox Power Generation Grp., Inc.*, 869 F.3d 246, 260 (3d Cir. 2017), *Pinto v. Allstate Ins. Co.*, 221 F.3d 394, 398 (2d Cir. 2000); *S.E.C. v. Murphy*, 626 F.2d 633, 640 (9th Cir. 1980). Bucklew has not identified any circuit split. He has merely asserted that the Eighth Circuit split from other circuits by *misapplying* the well-known standard for summary judgment. This case presents no novel or important legal question about summary judgment.

Not only did the Eighth Circuit correctly apply the summary judgment standard, but even if this Court disagreed, this Court need not exercise its extraordinary power of review to correct what Bucklew purports is a single misapplication of a standard that is correctly employed thousands of times each year. Bucklew admits that he wants this Court to "reaffirm" the well-known summary judgment standard. Pet. 20. But granting certiorari is unwarranted when the petition merely asserts a "misapplication of a properly stated rule of law." Sup. Ct. R. 10. The Court also could not consider Bucklew's second question presented without also considering every other factual predicate Bucklew must establish because without establishing those predicates, he cannot prevail.

Granting certiorari or a stay is further unwarranted where, as here, "the State and the victims of crime have an important interest in the timely enforcement of a sentence"—enforcement that has already been delayed by 22 years and a stay by this Court four years ago. *Hill*, 547 U.S. at 584. And it is especially unwarranted

because, as established above, Bucklew is extremely unlikely to prevail on the merits—as even the panel dissent below suggested.

CONCLUSION

Bucklew cannot establish a significant probability of success on the merits, his litigation strategy caused substantial delays, and "the State and the victims of crime have an important interest in the timely enforcement of a sentence." *Hill*, 547 U.S. at 584. Further delay is unwarranted. This Court should deny the motion for stay of execution and deny the petition for a writ of certiorari.

Respectfully submitted,

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March 16, 2018

Nos. 17-8151 & 17A911

IN THE

Supreme Court of the United States

RUSSELL BUCKLEW,

Petitioner,

v.

ANNE PRECYTHE, *et al.*,

Respondents.

On Petition for a Writ of Certiorari to the United States Court of Appeals for the Eighth Circuit

REPLY BRIEF IN SUPPORT OF PETITION FOR A WRIT OF CERTIORARI AND APPLICATION FOR STAY OF EXECUTION

EXECUTION SCHEDULED FOR MARCH 20, 2018

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CAPITAL CASE

In this case, the Eighth Circuit, in a published opinion, adopted novel rules of law for the litigation and disposition of as-applied challenges to a state's method of execution. The first two novel rules discussed in the petition strike a serious blow against the reliable resolution of such challenges. The first Eighth Circuit rule frustrates the truth-finding process entirely, by assuming that the execution of an inmate with a rare and highly complicating medical condition likely will go "as intended," and by closing off discovery into the skills and experience of the medical personnel involved. The second Eighth Circuit rule stacks the deck against inmates in ways we do not tolerate in any other truth-finding court process, by requiring inmates to produce a single witness willing to compare a state's proposed method with one custom-designed to account for the inmate's medical complications. Respondents barely acknowledge these new rules of law in their opposition. They refuse even to discuss the serious systemic concerns these novel rules raise. They ignore how the Eighth Circuit's opinion, and the truth-frustrating rules it announces, makes events like recent disturbing and failed executions more likely to recur.

This Court is not being asked to decide what will happen during Bucklew's execution. It is being asked to decide how best to determine what will happen, in this case and future ones raising as-applied challenges to a state's method of execution. The whole point of an adversarial process is to allow one side to test the confident assurances of the other. Discovery into the competence of medical professionals to manage predictable and serious challenges illuminates whether needless suffering is very likely. A trial at which expert witnesses whose opinions are in dispute face

skeptical cross-examination enhances confidence in how events will unfold. The Eighth Circuit has constructed an alternate process for method of execution claims that is less reliable than the one we use for any other claim. The resulting rules allow predictable and needless suffering, deliberate indifference and cruelty in violation of the Eighth Amendment, to go unchecked.

Respondents cannot defend the Eighth Circuit's rules for determining what will happen during Bucklew's execution. So they ask this Court to trust them about what will happen. Respondents spend almost the entirety of their opposition presenting a one-sided view of the record in an effort to assure this Court that Bucklew's execution will not involve needless suffering. Their view of the record departs significantly from the district court's and the Eighth Circuit's view. It is wrong, and repeatedly so, in material respects. This Court cannot and should not just trust respondents. Moreover, respondents' record-defying defense of the judgment unwittingly underscores the need for this Court's review. It punctuates the importance of a robust adversarial process. Reliability suffers when a one-sided and untested view prevails. The process for determining whether executions will go "as intended" merits this Court's attention. And this case is an ideal opportunity to do so.

I. RESPONDENTS' ONE-SIDED VIEW OF THE FACTS DEMONSTRATES THE UNRELIABILITY OF THE LITIGATION PROCESS THE EIGHTH CIRCUIT ENDORSED.

Much of what respondents say about the facts ignores evidence they do not like. Their presentation illustrates why discovery into the skills and experience of M2 and M3 is necessary to understand the magnitude of the risks Bucklew faces from Missouri's

lethal injection protocol. The litigation-resolution short-cuts that the Eighth Circuit invented, and Bucklew challenges here, are the lynchpin of a judgment that affirms an execution method that will very likely lead to needless suffering.

Starting at the beginning, respondents suggest that peripheral vein access is possible. Opp. 5, 24-25. But the district court expressly found "an apparent consensus that an IV cannot be safely inserted in [Bucklew's] peripheral veins." Pet. App. 32a. The Eighth Circuit never doubted that Bucklew will receive the lethal drug through the femoral vein. *Id.* at 10a.

That raises a critical question: *how* will M2 and M3 access Bucklew's femoral vein? Respondents assert that the record is clear that a cut-down will not be necessary because Dr. Zivot said *he* could access the femoral vein without a cut-down. Opp. 6, 25. But this assumes that M3 is as skilled and experienced as Dr. Zivot. Yet Bucklew was denied the chance to explore M3's skill and experience. So respondents are, on the one hand, denying the relevance of M3's skill and experience and, on the other hand, asking this Court to bestow on M3 the degree of skill and experience of Bucklew's expert.

The execution protocol does not dictate the procedure for gaining femoral access. Pet. App. 145a. Director Precythe has made clear that medical personnel will decide how to gain femoral access. APP0338-40 at 35:12-37:9; APP0341-42 at 43:11-44:22. Respondents do not deny that a considerable degree of pain and needless suffering is at stake in this decision. Nowhere do they deny that *if* Bucklew must lie flat during a cut-down procedure (and not even the affidavit submitted during the rehearing briefing in the Eighth Circuit suggests that Bucklew will be anything other than fully supine while M2 and M3 seek

venous access), then he will likely begin to suffocate and gag on his own blood even before the lethal drug is administered. Bucklew is very likely facing such cruel and needless suffering.

The Eighth Circuit panel *assumed* it all away by operation of law. The Eighth Circuit affirmed denying discovery into M2's and M3's skills and experience only by "assuming that those responsible for carrying out the sentence are competent and qualified to do so, and that the procedure will go as intended." Pet. App. 17a. This assumption is at the heart of a dangerously unreliable way to resolve as-applied challenges to methods of execution.

The record here illustrates how unreliable that assumption is. We know that medical personnel overseeing Bucklew's execution have used a cut-down before. APP0309 at 28:11-22; APP311-12 at 55:12-56:17. And we know that someone with the skill to access the femoral vein without a cut-down should not use it. Resp.Ex.5 at 98:8-23. The inference is clear: the medical personnel lack the skill to access a femoral vein without a cut-down. This is not speculation, as the Eighth Circuit supposed. Pet. App. 16a. And Bucklew, who bears the burden of demonstrating the extent of suffering he faces from the state's protocol, should have been allowed to uncover just how much suffering he's likely to experience *prior* to the introduction of the lethal drug. Assuming, as the Eighth Circuit declared courts should, that the skills and experience of state medical officials makes that degree of risk zero all but ensures that courts will misjudge how much suffering inmates will face.

Respondents also dispute that Bucklew will experience the sense of suffocation for several minutes *after* the lethal drug is introduced. Here, too, they depart from both the district court and the Eighth Circuit,

neither of which ruled on that ground, and both of which accepted that Dr. Zivot's view should be credited at summary judgment. Pet. App. 33a-34a, 11a. Respondents once again ask this Court to endorse short-circuiting litigation's truth-finding function by directly attacking Dr. Zivot's credibility, Opp. 34-36, and by mischaracterizing his testimony. Dr. Zivot did not base his theory on a single study from horses. *See* Opp. 30. His declaration makes clear that it is based on his 22 years of experience as an anesthesiologist. Pet. App. 107a, 109a. He consulted the horse study merely to demonstrate that Dr. Antognini's view about the speed at which the drug will render Bucklew insensate to pain was wrong. Resp.Ex.1 at 84:22-86:22. Respondents' doubts about the accuracy of Dr. Zivot's conclusions are no reason to reject them out of hand; they are reasons to test his opinions via cross-examination at trial. That would give Dr. Zivot the chance to defend himself and his conclusions. That is how our litigation system gets at the truth.

The Eighth Circuit took a different tack, but one that is no less ominous for the reliability of litigated judgments. As Judge Colloton made clear, the panel refused to allow Bucklew to rely on evidence in the record as a whole. It insisted that the comparison of the risks (*after* the administration of the lethal drug) of lethal injection and lethal gas must come from a single witness. Pet. App. 14a. Respondents insist this is, at most, error in the application of settled law. Opp. 22, 37-38. But while it is that, it is not *just* that. It is also an incorrect interpretation of this Court's decisions requiring evidence comparing the state's method with the inmate's alternative. Given the challenges inmates face finding medical experts willing to custom-design methods of execution, the Eighth Cir-

cuit's extension of *Glossip* will inhibit the reliability of judgments and warrants review.

Respondents do not stop there, though. They twist the Eighth Circuit ruling into something it is not. They suggest that the Eighth Circuit concluded that Dr. Antognini simply never opined on the length of time that Bucklew would experience suffocation if lethal gas were used. Opp. 17. But it is clear that Dr. Antognini *did* opine that lethal gas would render Bucklew insensate to suffering within 20-30 seconds. He first testified that lethal injection would render Bucklew insensate to suffering within 20-30 seconds. Resp.Ex.5 at 41:4-6. He then said that lethal gas would be "just like" lethal injection in this respect. *Id.* at 231:22-232:6, 234:13-21. Therefore, Dr. Antognini's view is that lethal gas would render Bucklew insensate to suffering within 20-30 seconds. And the Eighth Circuit panel never said otherwise. It simply ruled that a fact-finder must consider Dr. Antognini's comparison of the two methods as an indivisible whole; a fact-finder cannot compare Dr. Zivot's view of lethal injection with Dr. Antognini's view of lethal gas. Pet. App. 14a. As noted above and in the petition and by Judge Colloton, that is wrong and warrants review.

Respondents go to especially extraordinary lengths to distort the litigation process by relying on an affidavit, submitted during rehearing proceedings, to support their contention that Bucklew will not experience suffocation at all during the procedure because he will not be forced to lie fully supine. Notably, the affidavit says nothing about his position *prior* to administration of the lethal drug. So it continues Missouri's persistent refusal to address Bucklew's risk of suffering while M2 and M3 seek to gain venous ac-

cess. But beyond that, it reflects a studied indifference to Bucklew's plight.

When unconscious but still sensate to pain (the twilight stage), his struggles to breathe are *worse* when lying flat, but not absent when he is not fully supine. Pet. App. 112a ¶ V.B.1-2. It is true that he has had surgeries during which he has been required to lay flat. But during surgery, he has required a tube inserted in his throat so that he could breathe. *Id.* at 111a-112a ¶ V.A.5. He endured an MRI procedure only because, while conscious, he can manage his airway, at least while not undergoing a stressful and painful procedure that causes his tumor to leak blood down his throat.[1] One need not doubt the sincerity of the gesture toward Bucklew of assuring him that he will not lie "fully supine" during administration of the lethal drug to see how inadequate a gesture it is. It is silent as to Mr. Bucklew's other medical complications and indifferent to the serious risks they pose. Propping his head up after gaining venous access via a cut-down, and after Bucklew has long been struggling to breathe from the tumor blocking his airway and leaking blood down his throat, will not prevent the needless suffering he faces. He will still experience *all* of the suffering prior to administration of the lethal drug, and will still experience a sense of suffocation for several minutes in the twilight stage while he is unable to manage his airway.

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[1] It is true that the MRI suggested his throat tumor had, at that point, shrunk. But it was an immaterial amount, Pet. App. 114a ¶ V.C., and there is no dispute that the disease is progressive and that his tumors, over time, have worsened, *id.* at 113a ¶ V.B.10; APP0324 at 48:6-24; APP0328.

II. THIS CASE IS AN EXCELLENT VEHICLE FOR THIS COURT TO CLARIFY THE PROCESS FOR RESOLVING AS-APPLIED METHOD OF EXECUTION CLAIMS.

As anticipated, respondents spend extensive time suggesting that procedural barriers in this case will inhibit this Court's ability to reach the important questions presented by the petition. Respondents point to no vehicle issue that should deter this Court from accepting review.

Respondents suggest that the way Bucklew pleaded his claim foreclosed review of the first question.[2] Respondents point out that Bucklew maintains that no adjustment to a lethal injection protocol will adequately reduce his risk of suffering. Opp. 12. From this, respondent infers that Bucklew's theory of liability makes M2's and M3's skills and experience irrelevant. Opp. 16; *see also* Pet App. 15a. That is a *non sequitur*. The first step in comparing the risks of lethal injection and lethal gas is to fully quantify the risks of Missouri's lethal injection protocol. It is highly relevant whether, for example, Bucklew will experience a substandard, painful cut-down procedure while lying flat and choking on his tumor and blood leaking from it. That definitely will not happen if Missouri uses lethal gas.

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[2] One issue is foreclosed: the feasibility and availability of lethal gas in Missouri. Both the district court and Eighth Circuit acknowledged that respondents conceded the point. Pet. App 34a, 13a. So this Court should ignore the vague assertion that "[n]othing in the record suggests" that Missouri's gas chamber "could readily become operational." Opp. 7. There is no reason to believe a gas chamber is necessary for a nitrogen hypoxia execution. *See* APP0470.

Respondents go even further and suggest that Bucklew pleaded that lethal injection was wrongful because the drug will not circulate properly. Opp. 12. True. But he did not *only* plead that theory. Bucklew clearly *also* pleaded that he will choke on the tumor in his throat and blood leaking from it during the execution. Resp.Ex.12 at 2-3; *id.* ¶¶ 5, 15, 16. And this risk of needless suffering is increased while lying flat, but it is present while not fully supine as well. *Id.* ¶ 102; *see also* Pet. App. 112a V.B.1-2. The Eighth Circuit clearly rejected the suggestion that Bucklew did not plead the claim he is asserting.

Respondents spend the greatest effort urging that Bucklew raised his claim too late. They ignore the ample explanation in the record why Bucklew did not plead an as-applied claim in 2008, and why, when he did plead his as-applied claim, he did not combine it with the separately litigated facial challenge. No judge has sided with respondents on these arguments because they are so weak.

Bucklew first sought and was denied funding for an expert to examine him and provide any potential factual basis to bring an as-applied challenge in 2008. *See* Resp.Ex.11 at 8-9, ¶11; *id.* at 20. Contrary to respondents' suggestion, Opp. 36, his potential expert did not know enough to support a claim; he said merely that "research and evaluation" was necessary for "an accurate medical opinion" of how lethal injection would work on someone with Bucklew's condition. Resp.Ex.11 at 13-14. He requested and was denied funding for a medical expert two more times in federal court and five times in state court over the next six years. Reply ISO Prelim. Inj. at 8-12, No. 14-cv-8000 (W.D. Mo. May 16, 2014) (ECF No. 12). Only after Dr. Zivot agreed to examine Bucklew in 2014, did Bucklew obtain the factual basis for his claim.

Only then did Bucklew learn of the substantial risk posed by his obstructed airway. *See* APP0211 (observing that "the factual basis for [Bucklew's] Fourth Amended Complaint is derived from medical examinations conducted in 2014"). The statute of limitations did not begin to run until Bucklew had a reasonable factual basis, based on Dr. Zivot's agreement to examine him, to plead his claim. *See Wallace v. Kato*, 549 U.S. 384, 388 (2007).

Respondents' *res judicata* argument fails for the same reason. As this Court has observed, an as-applied challenge is not the same thing as a facial challenge, especially, as here, where they are based on different facts. *Whole Woman's Health v. Hellerstedt*, 136 S. Ct. 2292, 2305 (2016). And the notion that Bucklew should have sought to fold his factually distinguishable as-applied challenge into the facial challenge is also unsupported. The facial challenge had been rejected and that case was nearly finally resolved by the time Bucklew filed his as-applied claim. Bucklew's as-applied claim, based on new facts, was properly brought in a new action.

Respondents suggest that the Eighth Circuit expected Bucklew's claim to fail on limitations grounds. Opp. 36. Not only is that inaccurate (the Eighth Circuit merely noted the issue, Pet. App. 84a-85a), but it ignores what happened on remand. The district court told respondents that if they wanted to pursue these procedural issues, including the limitations issue, they should develop them factually. Resp.Ex.14 at 7. Respondents never did. Their inaction speaks volumes: the procedural arguments are meritless and have always been nothing more than an effort to distract courts from the merits. No court has yet taken the bait. This Court should not be the first.

Finally, respondents urge this Court to deny review of the third question presented—whether he must plead and prove an alternative method—because Bucklew could have asked the Court to consider the issue after the Eighth Circuit vacated the dismissal order and remanded for further proceedings. Opp. 22. That is no reason to deny review now. This Court routinely chooses not to accept issues for review when further proceedings are anticipated that might moot the issue. There is no reason to punish Bucklew for waiting until it became clear that the issue is case-dispositive before asking this Court to review it.

CONCLUSION

The petition for writ of certiorari and application for stay of execution should be granted.

Respectfully submitted,

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March 19, 2018

No. 17-8151

IN THE

Supreme Court of the United States

RUSSELL BUCKLEW,

Petitioner,

—v.—

ANNE PRECYTHE, *et al.*,

Respondents.

ON PETITION FOR A WRIT OF CERTIORARI TO THE UNITED STATES COURT OF APPEALS FOR THE EIGHTH CIRCUIT

BRIEF OF *AMICI CURIAE* THE AMERICAN CIVIL LIBERTIES UNION AND THE ACLU OF MISSOURI, IN SUPPORT OF PETITIONER

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INTEREST OF AMICI[1]

The American Civil Liberties Union (ACLU) is a nationwide, nonprofit, nonpartisan organization of approximately 1.6 million members dedicated to the principles of liberty and equality embedded in the United States Constitution. Founded nearly a century ago, the ACLU has appeared in myriad cases before this Court, both as merits counsel and as amicus curiae, to defend the Bill of Rights. The ACLU has often appeared in this Court to address those portions of the Bill of Rights having to do with administration of the criminal justice system. The organization has a strong interest in ensuring that capital punishment protocols practiced in the United States do not violate the Eighth Amendment. And it has a particular interest in this case because it represents Petitioner Russell Bucklew before the Inter-American Commission on Human Rights, where he has argued, successfully, that proceeding with his execution under the circumstances unique to his case would violate the prohibition on cruel and inhuman punishment and could amount to torture.

The ACLU of Missouri is one of the ACLU's statewide affiliates and has more than 19,000 members. The ACLU of Missouri provided direct representation in numerous state and federal cases challenging secrecy about the administration of the death penalty.

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[1] No counsel for a party authored this brief in whole or in part, and no person or entity, other than *amici curiae*, their members, and their counsel, made a monetary contribution to the preparation or submission of this brief. The parties have consented to the filing of this brief and their indications of consent have been filed with the Clerk.

SUMMARY OF ARGUMENT

This case raises critically important questions about how the courts should adjudicate claims that a method of execution, even if generally constitutional, is unconstitutional as applied to a particular prisoner because of his idiosyncratic medical condition. Petitioner Russell Bucklew suffers from a rare medical disease, cavernous hemangioma, which poses a unique threat of excruciating pain during execution by lethal injection, the method Missouri has chosen to kill him. As a result of his medical condition, he is likely to choke on his own blood and suffocate for up to four minutes during his execution.

The court of appeals declined relief to Mr. Bucklew because it found that he was unable to identify an alternative method of execution that would cause less suffering to an individual with his medical condition. And in so concluding, it approved special procedural obstacles, applicable only to this case, which made it virtually impossible for him to meet the burden the courts imposed on him. Petitioner seeks certiorari to challenge both the requirement that a prisoner advancing an individualized as-applied challenge to a method of execution bears the burden of identifying an available alternative and the special procedural obstacles imposed on him.

This is not the first time such questions have been presented to this Court. In two prior cases, involving Alva Campbell and Doyle Hamm, respectively, this Court declined review of similar issues presented by death row inmates with idiosyncratic medical conditions. Both Mr. Campbell and Mr. Hamm maintained that their medical conditions created a substantial risk that their executions would be cruel and unusual. In both cases, this Court denied

applications for stays and petitions for certiorari. The states attempted to carry out the executions, and in both cases what the inmates feared came to pass. Both Mr. Campbell and Mr. Hamm were subjected to botched executions that had to be halted—but not before inflicting horrific and needless suffering. Neither man was ultimately executed, but both suffered unconstitutionally cruel and unusual punishment because of the complications created by their medical conditions. By granting review here and resolving confusion in the lower courts about how *Glossip v. Gross*, 135 S. Ct. 2726 (2015), governs individualized as-applied challenges, the Court has the opportunity—and responsibility—to avert another botched execution. The Court should grant certiorari to address the unfortunately recurring question of how courts should assess claims that otherwise permissible methods of execution, when applied to prisoners with particular compromised health conditions, will cause needless pain and suffering, violating the Eighth Amendment. The courts below erected insurmountable hurdles to adjudicating such claims fairly. Only this Court can ensure that Mr. Bucklew avoids the unconstitutional experience that Mr. Campbell and Mr. Hamm were made to suffer.

ARGUMENT

I. THE COURT SHOULD GRANT CERTIORARI TO CLARIFY THAT PRISONERS RAISING AS-APPLIED CHALLENGES TO THE METHOD OF AN EXECUTION BASED ON THEIR UNIQUE MEDICAL CONDITIONS NEED NOT DEMONSTRATE A READILY AVAILABLE ALTERNATIVE METHOD OF EXECUTION.

In *Glossip v. Gross*, this Court held that prisoners challenging a method of execution as a violation of the Eighth Amendment on its face must demonstrate that the method poses a "risk of severe pain" that is "substantial when compared to the known and available alternatives." 135 S. Ct. at 2737. The requirement that prisoners plead and prove a known and available alternative method of execution was imposed to ensure that such a challenge not become a *sub rosa* challenge to the death penalty as such. The Court reasoned that, "because it is settled that capital punishment is constitutional, '[i]t necessarily follows that there must be a [constitutional] means of carrying it out." *Id.* at 2732 (quoting *Baze v. Rees*, 553 U.S. 35, 47 (2008)). If the only method of execution available to a State is deemed unconstitutional, the decision would have the practical effect of precluding any executions in that State. Accordingly, to avoid that outcome, the Court required a showing of an alternative method of execution.

The central questions in this case concern whether that requirement of establishing an available alternative should apply to an individual who does not challenge a method of execution in general, but only as applied to his particular circumstances, and how the courts should adjudicate and assess such

challenges as a procedural matter. Similar questions were presented to this Court before, and both times the Court denied review, with deeply unfortunate consequences. Those experiences should guide the Court in its assessment of whether to grant review this time. The Court has the opportunity to avert another terribly botched execution. As the last court that stands between Mr. Bucklew and a cruel and unusual execution, the Court should take up the questions and resolve them now.

There is good reason *not* to require individuals in Mr. Bucklew's condition to identify an alternative method of execution. A holding that lethal injection is unconstitutional as applied to Mr. Bucklew because of his rare medical condition does not risk invalidating the death penalty altogether. It affects only a single execution. Like this Court's holdings that it is unconstitutional to execute individuals with intellectual disabilities, *see, e.g.*, *Moore v. Texas*, 137 S. Ct. 1039, 1048 (2017), a ruling sparing Mr. Bucklew from the death penalty will not render that penalty unavailable as to anyone else. Accordingly, if he shows that Missouri's lethal injection regime as applied to him will cause suffering that renders its application cruel and unusual, the Eighth Amendment should bar his execution unless prison officials identify another method that will not cause an unconstitutional degree of suffering.

In addition, where an individual has demonstrated that a method of execution, as applied to his unique medical condition, will inflict an unacceptable level of pain, the burden should shift to the State, both because it is its obligation to conduct an execution without an unconstitutionally unacceptable level of pain and suffering, and because it alone is likely to have the knowledge and experience with alternative

methods of execution to inform the question whether acceptable alternatives exist that would end the prisoner's life without inflicting unconstitutional pain and suffering. A death row prisoner is not in a position to assess how alternative methods of execution would interact with his particular medical conditions. Thus, in individualized as-applied challenges, the burden should shift to the State once a prisoner demonstrates that the proposed method of execution poses a constitutionally unacceptable risk of inflicting cruel and unusual punishment.

Alva Campbell objected to his method of execution on grounds similar to Mr. Bucklew's challenge. Petition for Writ of Certiorari, *Campbell v. Jenkins*, 138 S. Ct. 466 (2017) (mem.) (No. 17-6688). At the time of Ohio's attempt to execute him, Mr. Campbell, 69 years old, had compromised veins, and was terminally ill with cancer, severe chronic obstructive pulmonary disease, and end stage emphysema, requiring four breathing treatments every day. Motion for Stay at 17-18, *Campbell v. Ohio*, No. 17-3855 (6th Cir. Nov. 8, 2017). He maintained that his deteriorating medical condition posed a substantial likelihood that he would suffer obstructed breathing and "air hunger" during the lethal injection procedure. *Id.* He further alleged that the prison's doctors anticipated it would be perilous and difficult to insert an IV given the quality of his veins, and contemplated using a tourniquet to attempt to establish IV access. *Id.* at 1, 10. He contended that given his medical condition, lethal injection would subject him to severe, needless pain and suffering, in violation of the Eighth Amendment. *Id.* at 10.

This Court denied Mr. Campbell's request for a stay and certiorari. *Campbell*, 138 S. Ct. 466.[2] Ohio proceeded with its execution attempt on the morning of November 15, 2017. The execution team examined Mr. Campbell's arms and legs for an hour before transporting him to the execution chamber in a wheelchair. Marty Schladen, *After four unsuccessful needle pokes, Columbus killer's execution called off*, Columbus Dispatch (Nov. 15, 2017). The execution team had to help Mr. Campbell onto the gurney. *Id.* They used an ultraviolet light for the next half hour in search of a vein through which to inject the drugs that would kill him, stabbing Mr. Campbell repeatedly in his arms and leg. After they stabbed his leg, Mr. Campbell threw back his head and cried out in pain. *Id.* "The executioners tried to comfort Mr. Campbell as they searched for a way to execute him, the A.P. said, by patting him on the arm and the shoulder." Liam Stack, *Execution in Ohio is Halted After No Usable Vein Can Be Found*, N.Y. Times (Nov. 15, 2017), https://www.nytimes.com/2017/11/15/us/ohio-execution-alva-campbell.html. The prison called off the execution after concluding they could not find an injection site. Tracy Connor, *Ohio cancels execution of Alva Campbell after failing to find vein*, NBC News (Nov. 15, 2017), https://www.nbcnews.com/storyline/lethal-injection/ohio-set-execute-inmate-alva-campbell-who-needs-wedge-pillow-n820956. Mr. Campbell died of natural causes in his cell

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[2] The petition in this Court was limited to a question regarding successive petitions, but the Sixth Circuit deemed Mr. Campbell's challenge a successive petition after rejecting his contention that an as-applied challenge based on an individual's particular medical condition should be treated like a *Ford*-competency claim that is not ripe until an execution date is set. *In re Campbell*, 874 F.3d 454, 466 (6th Cir. 2017).

approximately three months later. Holly Zachariah, *Ohio Death Row Inmate Campbell Dies of Natural Causes*, Columbus Dispatch (March 3, 2018), http://www.dispatch.com/news/20180303/ohio-death-row-inmate-alva-campbell-dies-of-natural-causes.

The botched execution in Alva Campbell's case was a direct result of the Sixth Circuit's ruling that Mr. Campbell had to plead a statutorily authorized alternative method of execution in order to proceed with his as-applied challenge to the execution protocol. *In re Campbell*, 874 F.3d at 461-62.[3] The Sixth Circuit acknowledged that his alleged medical claims, "if substantiated, could raise a significant problem with administering a lethal injection," but concluded that Mr. Campbell's claims failed as a matter of law because he had not identified an alternative means of execution. *Id.* at 465. When this Court denied a stay and certiorari, the execution went forward, with disastrous consequences—largely as predicted by Mr. Campbell. The ordeal that Ohio put Mr. Campbell through was plainly cruel and unusual, regardless of whether another procedure might have avoided such suffering.

As Judge Moore, dissenting in *In re Campbell*, explained, the rationale for imposing the "alternative

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[3] Mr. Campbell had filed both a § 1983 challenge to his execution and a habeas petition alleging that he was categorically exempt from the death penalty, both predicated on his individual medical condition. In the § 1983 suit, Mr. Campbell had attempted to plead that the firing squad was a superior alternative method of execution, but the federal court rejected his amendment on the ground that the firing squad was not authorized by Ohio law. Decision and Order Denying Motion to Certify for Interlocutory Appeal at 2-3, *In re Ohio Execution Protocol Litigs.*, No. 2:11-cv-1016 (S.D. Ohio Nov. 7, 2017), ECF No. 1366.

method" requirement is inapposite where, as here, an individual does not challenge the planned method of execution as a general matter, but only because of complications arising from his unique medical condition:

> Were Campbell simply challenging Ohio's generalized use of a particular execution protocol . . . I agree with the majority that *Glossip v. Gross*, 135 S. Ct. 2726, 2739 (2015), would foreclose his claim. Such a ruling would be tantamount to declaring the death penalty as a whole unconstitutional in a given state. . . . I see an important distinction between *Glossip* and Campbell's case, however, in the fact that while *Glossip* featured an across-the-board challenge to the only approved methods of execution in Oklahoma, this case concerns only whether the fact of Campbell's sentence itself is constitutional in light of Campbell's personal biological characteristics and the currently available means of execution.

In re Campbell, 874 F.3d at 468 (Moore, J., dissenting). As Judge Moore notes, this Court made clear in *Glossip* that its rule was driven by concern that a decision upholding a generalized challenge to a method of execution without an available alternative would mean the end of the death penalty in that state. *See generally*, Pet. 30-32; *Glossip*, 135 S. Ct. at 2732-33. Where that is not a concern, the alternative method requirement should not apply.

In this case, as in Mr. Campbell's, the court of appeals relied on *Glossip* to deny Mr. Bucklew relief because he had not sufficiently alleged and established an alternative method of execution that

would cause less pain. *Bucklew v. Precythe*, 883 F.3d 1087, 1091 (8th Cir. 2018). Unlike *Glossip*, however, which involved an across-the-board challenge to an execution protocol, Mr. Bucklew's as-applied challenge rests on his idiosyncratic medical vulnerability, and therefore ruling in his favor is not tantamount to invalidating the death penalty. As a result, he should not be required to demonstrate an alternative method of execution to prevail on his Eighth Amendment claim.

For more than one hundred years, this Court has recognized that the death penalty cannot be imposed in a manner that will "involve torture" or be "inhuman and barbarous—something more than the mere extinguishment of life." *In re Kemmler*, 136 U.S. 436, 447 (1890); *see also Wilkerson v. Utah*, 99 U.S. 130, 135-36 (1878); *Weems v. United States*, 217 U.S. 349, 368 (1910); *Estelle v. Gamble*, 429 U.S. 97, 102 (1976); *Rhodes v. Chapman*, 452 U.S. 337, 345-46 (1981); *see also Glossip*, 135 S. Ct. at 2747 (Scalia, J., concurring) (stating that Eighth Amendment bars "added terror, pain, or disgrace to an otherwise permissible capital sentence" (internal quotation marks and citation omitted)). An otherwise permissible execution protocol that inflicts *added* terror, pain, and torture because of the prisoner's unique medical condition violates the Eighth Amendment.

The Eighth Circuit accepted as undisputed for purposes of summary judgment that Mr. Bucklew is likely to experience extreme pain and suffocation during the lethal injection procedure. *Bucklew*, 883 F.3d at 1094. It is also conceded that execution by lethal gas is a feasible and available alternative. *Id.* The Eighth Circuit declined to issue a stay of execution, however, concluding that there was insufficient evidence that lethal gas would

substantially reduce the risk of pain and suffocation for Mr. Bucklew. *Id.* at 1096. But in an individualized as-applied challenge that does not threaten to invalidate the death penalty as such, this should not matter. If lethal injection will cause excessive pain and suffering to Mr. Bucklew because of his rare medical condition, it is unconstitutional to subject him to it regardless of how lethal gas—or any other procedure—might work. Indeed, if *both* methods available to the State would cause excessively excruciating pain and suffering, then *both* methods would be unconstitutionally cruel and unusual. A prisoner in Mr. Bucklew's shoes should not have to identify an alternative procedure; rather, that should be the State's burden if it seeks to execute him but has not yet proposed a way to do so without excruciating pain.

This conclusion is supported by international human rights standards, which inform Eighth Amendment jurisprudence. "[A]t least from the time of the Court's decision in *Trop*[*v. Dulles*, 356 U.S. 86 (1958)], the Court has referred to the laws of other countries and to international authorities as instructive for its interpretation of the Eighth Amendment's prohibition of 'cruel and unusual punishments.'" *Roper v. Simmons*, 543 U.S. 551, 575 (2005). Mr. Bucklew has brought his case to the Inter-American Commission on Human Rights ("IACHR"), which recently ruled that executing Mr. Bucklew in light of the medical vulnerabilities he suffers would inflict cruel and inhuman punishment on him and could result in torture, both of which are prohibited by the American Declaration of the Rights and Duties of Man. App. (Inter-American Commission on Human Rights, Report No. 28/18,

Case No. 12,958, Report on Merits, Russell Bucklew (March 18, 2018)).[4] The Commission concluded:

> The Commission considers that this particular risk of choking on his own blood, being aware of it, and for a period of up to four minutes, taking in consideration the context of extreme stress and anxiety, would constitute cruel and inhuman punishment. The IACHR finds that the severity of the suffering that would be imposed under such circumstances could amount to torture.

App. 42a (IACHR Report 15 (¶ 78)). The Commission also determined that whether a proposed punishment constituted cruel and inhuman punishment or torture in this case is not dependent upon the existence of less painful alternatives. App. 43a-45a (IACHR Report 16 (¶¶ 80-82)). As the Commission ruled, proceeding with the execution of Mr. Bucklew in the face of the knowledge of the heightened pain and suffering that would be involved for him would violate the United States' international obligations to ensure it does not inflict cruel and inhuman punishment. App. 45a (IACHR Report 16 (¶ 83)).

"By protecting even those convicted of heinous crimes, the Eighth Amendment reaffirms the duty of the government to respect the dignity of all persons." *Roper*, 543 U.S. at 560. In light of Mr. Bucklew's

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[4] As a Member State of the Organization of American States, the 1948 American Declaration of the Rights and Duties of Man imposes international legal obligations on the United States. App. 33a-34a (IACHR Report 12 (¶ 60)). The American Declaration guarantees the right of everyone to be free from cruel and inhuman treatment or punishment and torture. *Id.* at 41a (IACHR Report 16 (¶ 76)). And the IACHR is the entity charged with the enforcement of these rights.

uniquely compromised physical condition, the execution method proposed by prison officials violates "the basic dignity the Constitution protects." *Hall v. Florida*, 134 S. Ct. 1986, 2001 (2014). The Court should grant certiorari and hold that in individual as-applied challenges to methods of execution, a showing that the method will inflict excruciating pain on a prisoner above that suffered by others is sufficient to violate the Eighth Amendment, without regard to whether alternative methods of execution exist.

II. THE COURT SHOULD GRANT CERTIORARI TO ADDRESS CONFUSION IN THE LOWER COURTS REGARDING THE PROCEDURES GOVERNING AS-APPLIED CHALLENGES TO THE METHOD OF EXECUTION.

Mr. Bucklew also seeks certiorari on two questions regarding the procedures the lower courts employed in rejecting his Eighth Amendment challenge. The court of appeals *assumed* without any evidentiary basis that the individuals responsible for carrying out Mr. Bucklew's execution were competent to do so, and barred Mr. Bucklew's requests for discovery concerning their ability to address the complications presented by his rare medical condition—a condition with which there is no reason to believe state officials have any prior experience at all. Pet. 21-25. It did so even though prison officials' own protocols do not assume that the employees are competent to access particularly challenging veins that may well be necessary in Mr. Bucklew's case. Pet. 22-23. And the court further demanded that Mr. Bucklew must prove that an available alternative would reduce the risks of needless pain *through a single witness*. Pet. 26-27. Together, these rulings made it virtually impossible for Mr. Bucklew to make the showing regarding alternative methods of execution that the Eighth

Circuit also imposed on him. These obstacles find no justification in the Federal Rules of Civil Procedure or the Federal Rules of Evidence. In the capital punishment context, the courts should be demanding full and fair adversarial testing, not constructing one-time-only obstacles that no other litigant must face. The risks of error where courts impose heightened obstacles and employ one-sided procedures in these cases are substantial, as the botched execution of Doyle Hamm graphically illustrates. Here, too, the Court's prior denial of similar claims by a particularly vulnerable death row inmate, and the horrific consequences that followed, counsel in favor of granting Mr. Bucklew's request for certiorari now, before it is too late.

On February 22, 2018, after this Court denied a stay of execution and a petition for certiorari, *Hamm v. Dunn*, 138 S. Ct. 828 (2018) (mem.), Alabama attempted to execute Doyle Hamm. The result was a torturous and bloody hours-long ordeal, in which prison officials ultimately gave up, but not before inflicting substantial needless and excruciating pain. Mr. Hamm had challenged lethal injection as applied in his case because of his compromised medical condition, including large-cell lymphoma cancer and severely deteriorated veins. *Hamm v. Dunn*, No. 2:17-cv-02083, 2018 WL 723104, at *1 (N.D. Ala. Feb. 6, 2018). The district court accepted that Mr. Hamm had proferred sufficient evidence to create material issues of fact regarding whether his peripheral veins were too compromised for injection, and whether central line placement was unduly dangerous because his enlarged lymph nodes created an increased risk of puncturing a central artery, causing severe and unnecessary pain. *Id.* at *1-*2. Rather than grant an injunction, however, the court appointed its own

independent, anonymous medical doctor to evaluate whether Mr. Hamm could sustain lethal injection. *Id.* at *2.

On February 16, 2018, days before Mr. Hamm's scheduled execution, the district court conducted a highly unusual hearing. The independent doctor communicated *in camera* and *ex parte* with the district court and later filed a written report. *Hamm v. Comm'r, Ala. Dep't of Corr.*, No. 18-10636, 2018 WL 1020051, at *1-*2 (11th Cir. Feb. 22, 2018). The doctor did not testify in court, and Mr. Hamm was not permitted to cross-examine him, or to present rebuttal evidence of any kind. The doctor found that Mr. Hamm's veins in his arm were not suitable for placement of the intravenous catheters required by Alabama's protocol. *Id.* at *2. At the district court's invitation, Alabama then agreed to alter its protocol to limit any injections to Mr. Hamm's legs or central venous access. Mr. Hamm was not permitted to respond. *Id.*; *see also*, Petition for Writ of Certiorari, *Hamm*, 138 S. Ct. 828 (No. 17-7855).

The district court also found that central line access would require the use of ultrasound and would need to be administered by an "advanced level practioner." *Hamm*, No. 18-10636, 2018 WL 1020051, at *7. It ordered the execution to proceed with the modifications it had crafted. *Id.* Mr. Hamm appealed and sought a stay from the Eleventh Circuit. The Eleventh Circuit found that the record below was inadequate to determine whether Alabama was capable of following the modifications ordered by the district court. It ordered Alabama to submit, within six hours, sworn affidavits addressing some of the unanswered questions. *Id.* Alabama filed three affidavits in the appellate court, and the Eleventh

Circuit, too, ordered that the execution could proceed. *Id.* Again, Mr. Hamm had no opportunity to respond.

Mr. Hamm filed a motion for stay and petition for certiorari with this Court, alleging that he should have been provided an opportunity to test the evidence and that the federal courts had themselves improperly devised an alternative protocol. *See* Petition for Writ of Certiorari, *Hamm*, 138 S. Ct. 828 (No. 17-7855). He argued, for example, that one of the affidavits submitted was misleading because it said, in response to whether a doctor was available to insert the IV, only that a doctor would be "present." *Id.* at 6. This response did not address whether the doctor would participate in the setting of the central line. *Id.* This Court denied relief, but two Justices would have granted Mr. Hamm's stay on the ground that he should have been afforded an opportunity to challenge through the adversarial process the last minute conclusions and evidence. *See Hamm*, 138 S. Ct. at 828 (Ginsburg, J., dissenting from the denial of the application for stay and the denial of certiorari).

When Alabama proceeded with its plan to execute Mr. Hamm, the prison staff could not find a vein for peripheral lethal injection—just as Mr. Hamm had predicted. They tried for two and a half hours to find a suitable vein, repeatedly slapping his legs and stabbing his legs and ankles. During some of these attempts, the execution team members left needles in Mr. Hamm's legs for several minutes, moving around in a painful search for a vein. Sandee LaMotte, *Death row inmate sues after 'botched' execution*, CNN (March 7, 2018), https://www.cnn.com/2018/03/07/health/alabama-execution-lawsuit/index.html. The executioners then attempted central venous access through Mr. Hamm's right groin—the area where Mr. Hamm's expert had warned that access could be

excruciating because of his cancer. The procedure was extremely painful and caused profuse bleeding, soaking the underlying pad in blood—again, as predicted. *Id.* Over the course of the more than two-hour ordeal, Mr. Hamm prayed the execution would succeed to end his pain. Tracy Connor, *Lawyer describes aborted execution attempt for Doyle Lee Hamm as 'Torture,'* NBC News (Feb. 25, 2018), https://www.nbcnews.com/storyline/lethal-injection/lawyer-calls-aborted-execution-attempt-doyle-lee-hamm-torture-n851006. "When he was finally removed from the gurney, he collapsed." Liliana Segura, *Another Failed Execution: the Torture of Doyle Lee Hamm*, Intercept (March 3, 2018), https://theintercept.com/2018/03/03/doyle-hamm-alabama-execution-lethal-injection/.

After the botched execution, Mr. Hamm and Alabama entered a private settlement agreement, dismissing all of Mr. Hamm's litigation and offering "great relief" to Mr. Hamm. *See* Columbia Law School Media Advisory, *Bernard Harcourt and the State of Alabama Settle Civil Rights and Habeas Corpus Lawsuits* (March 27, 2018), http://www.law.columbia.edu/news/2018/03/bernard-harcourt-and-state-alabama-settle-civil-rights-and-habeas-corpus-lawsuits. While the terms are confidential, it is a reasonable inference that Alabama will not again attempt to execute Mr. Hamm.

As in Mr. Hamm's case, the courts in Mr. Bucklew's case also crafted unique procedural rules for evaluating his as-applied challenge to lethal injection. As noted above, the Eighth Circuit simply *assumed* the competence of key players in the execution process, even though prison official's own protocols do not assume such competence. The court barred any discovery into the question. And it applied

a new rule, with no foundation in the rules governing civil litigation, that Mr. Bucklew must make a comparative showing about alternative methods of execution through a single witness.

Serious challenges to execution protocols based on an individual's specific medical condition warrant the full benefit of the adversarial process. Such claims ask the courts to avoid a torturous execution. There is no basis to subject the Eighth Amendment's guarantee against cruel and unusual punishment to special procedural obstacles applicable only to challenges to the method of execution. The IACHR in Mr. Bucklew's case also found that the extraordinary obstacles imposed on Mr. Bucklew violated international human rights obligations. As the IACHR concluded:

> In capital cases, the State has an enhanced obligation to ensure that the person sentenced to death has access to all the relevant information regarding the manner in which he or she is going to die. In particular, the convicted person must have access to information related to the precise procedures to be followed, the drugs and doses to be used in the case of execution by lethal injection, and the composition of the execution team as well as the training of its members. . . . Any person subjected to the death penalty must have the opportunity to challenge every aspect of the execution procedure and such information is necessary to file a challenge.

App. 39a (IACHR Report 14 (¶¶ 71-72)).

Mr. Bucklew should be permitted to challenge the training and qualifications of the prison staff to carry

out his execution in light of his rare medical condition. The Eighth Circuit erred in denying him any discovery on that issue, and indeed pretermitted the issue by adopting an unfounded assumption of competence that the State itself does not adopt. In Mr. Hamm's case, the absence of full and fair adversarial testing led the federal courts to rely on demonstrably erroneous factual conclusions, and allowed Alabama to proceed with a horribly botched execution. This history is in danger of repeating itself. The Court has an opportunity to avert such a repetition, by granting review and holding that medically compromised prisoners should be granted access to information about the training and qualifications of the execution team if it is relevant to their sufficiently pleaded claims, and should not be subject to unique procedural obstacles to full and fair adversarial adjudication.

CONCLUSION

For all the above reasons, the Court should grant the petition for a writ of certiorari.

April 6, 2018

Respectfully submitted,

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APPENDIX

[LOGO]
INTER-AMERICAN COMMISSION
ON HUMAN RIGHTS

REPORT No. 28/18

CASE 12,958

REPORT ON MERITS

RUSSELL BUCKLEW

UNITED STATES

OEA/Ser.L/V/II.
Doc. 33
www.cidh.org

Approved by the Commission on March 18, 2018.

Cite as: IACHR, Report No. 28/18, Case 12.958. Merits. Russell Bucklew. United States, March 18, 2018.

[LOGO] Organization of American States

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I. SUMMARY

1. On May 19, 2014, the Inter-American Commission on Human Rights (hereinafter, "the Inter-American Commission" or "the IACHR") received a petition filed by the American Civil Liberties Union (ACLU) (hereinafter, "the petitioners") against the United States of America (hereinafter, "the United States" or "the State"). The petition was submitted on behalf of Russell Bucklew (hereinafter, "the alleged victim" or "Mr. Bucklew") deprived of his liberty on death row in the state of Missouri.[1]

2. The Commission adopted its Admissibility Report No. 54/14 on July 21, 2014.[2] On July 28, 2014 the Commission notified that report to the parties and offered to facilitate a friendly settlement process if the parties wished to pursue that. Both parties were granted the deadlines established by the Commission's Rules of Procedure to submit their additional observations on the merits.[3]

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[1] The petition was initially lodged on behalf of Mr. Bucklew and Charles Warner. This report concerns the situation of Mr. Bucklew. The case of Mr. Warner is still under consideration by the IACHR.

[2] IACHR. Report No. 54/14. Petition 684-14. Admissibility. Russell Bucklew and Charles Warner. United States. July 21, 2014.

[3] On May 20, 2014, the Commission adopted Resolution 14/14 requesting the Government of the United States to take precautionary measures regarding this matter. Pursuant to Article 25 of its Rules of Procedure, the Commission requested the government of the United States to refrain from executing Russell Bucklew until the IACHR ruled on the merits of the individual petition filed on his behalf. Available at: http://www.oas.org/en/iachr/decisions/pdf/2014/MC177-14-EN.pdf.

3. The petitioners alleged that the lethal injection protocol in Missouri creates an intolerable risk of excruciating pain. They claimed that, given a serious congenital medical condition that Mr. Bucklew suffers, the current protocol creates a substantial risk that the drug will not circulate properly, leading the alleged victim to hemorrhage, choke and suffocate. Petitioners further argued that the secrecy surrounding the development and implementation of lethal injection protocols in Missouri has effectively prevented death row prisoners from arguing that a given method of execution violates the prohibition of cruel and unusual punishment. On March 14, 2018 the petitioners informed the Commission that the execution of the alleged victim was scheduled by the state of Missouri for March 20, 2018.[4]

4. The State argued that the alleged victim has been provided his due process rights and judicial guarantees, and that the domestic courts have considered his allegations concerning the method of execution and Missouri's protocol. The State maintained that the death penalty is not incompatible with international law and that lethal injection has been considered to be a more humane method.

5. Having examined the positions of the parties and the established facts, the Inter-American Commission concluded that the United States is responsible for violating Articles I (right to life, liberty and personal security), XVIII (right to a fair trial), XXV (right of protection from arbitrary arrest)

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[4] On the same date, the IACHR sent this information to the State and, given the urgency, requested its observations within a period of two days. The IACHR did not receive the observations of the United States.

and XXVI (right to due process of law) of the American Declaration of the Rights and Duties of Man (hereinafter "American Declaration") in the case of Russell Bucklew. In the event the execution of Mr. Russell Bucklew is carried out, the State would be responsible for a serious and irreparable violation of the fundamental right to life protected in Article I of the American Declaration.

II. POSITIONS OF THE PARTIES

A. Position of the Petitioners

6. The petitioners stated that Russell Bucklew was sentenced to death on May 15, 1997, in the state of Missouri in the United States. They indicated that the Missouri Supreme Court first set his execution date for May 21, 2014, but on May 9, 2014, Mr. Bucklew filed suit in the United States District Court-Western District of Missouri challenging Missouri's execution protocol as it would apply to him specifically. On May 20, 2014, the United States Supreme Court granted Mr. Bucklew a stay and ordered the United States Court of Appeals for the Eighth Circuit to hear his case. Petitioners affirmed that the Eighth Circuit subsequently ruled that the federal district court erred in dismissing Mr. Bucklew's complaint because it was not patently obvious that he could not prevail or that an amendment to the complaint would be futile. Petitioners informed that, on June 15, 2017, the district court granted summary judgment in favor of the State. This decision was later affirmed by the Eighth Circuit Court of Appeals on March 6, 2018. According to the most recent information provided, Mr. Bucklew's execution has been scheduled for March 20, 2018.

7. With regard to the suit filed by Mr. Bucklew challenging Missouri's execution protocol before the

United States District Court, petitioners reported that the Eighth Circuit concluded Mr. Bucklew failed to establish that the lethal injection, as applied to him, constitutes cruel and unusual punishment under the Eighth and Fourteenth Amendments. According to the information petitioners provided, the court did not challenge Mr. Bucklew's contention that lethal injection posed "a substantial risk of serious and imminent harm" to him but considered, under the Supreme Court's decision in Glossip v. Gross, that he had failed to show that his proposed alternative method of execution-induced hypoxia (lethal gas)—was a "feasible, readily implemented" method that would substantially reduce his suffering.

8. The petitioners affirmed that the lethal injection protocol that the state of Missouri plans to use for the execution of Mr. Bucklew calls for the administration of five grams of pentobarbital, administered through an IV line into the execution chamber, where the prisoner is alone and strapped to a gurney. The petitioners opposed the protocol because it calls for proceeding with executions using compounded pentobarbital; for removing methylene blue from the saline fluids used to start and flush the IV line; and it provides the option to use a central venous line (femoral, jugular, or subclavian) for the placement of the intravenous line, over the peripheral line access, commonly used in other states' protocols. They stated that during the execution no medical personnel would be close at hand; but would monitor the prisoner remotely from the "execution support room" while non-medical personnel administer the lethal drug by injecting it into a syringe.

9. The petitioners indicated that Mr. Bucklew's execution with this protocol presents a unique threat of cruel, inhuman, or degrading treatment and even

torture. They explained that Mr. Bucklew suffers since infancy from cavernous hemangioma in his neck and head, a blood vessel condition that causes clumps of weakened, malformed vessels to grow in his head, face, and throat, displacing healthy tissue and rupturing under stress. They further explained that Mr. Bucklew also has a massive vascular tumor occupying his nose, throat and airway passages. As a result, petitioners affirmed that his conditions create a very substantial risk that he will suffer excruciating, even torturous, pain during an execution. Petitioners added that, in light of the medications that Mr. Bucklew takes to manage his medical condition, there is a risk of adverse events resulting from drug interactions. In this respect, they determined that the risks arising from drug interactions and the anesthetic effects of pentobarbital are further exacerbated by the use of compounded pentobarbital, which, unlike a manufactured drug, carries no guarantees of its safety, potency, or purity.

10. The petitioners argued that the state of Missouri has acquired its pentobarbital in a suspect manner, in the absence of any regulation or accountability. They sustained that the Missouri Department of Corrections refuses to disclose any information about the drug's safety, purity, and potency, and will not even confirm whether the drug is subject to any laboratory testing at all.

11. The petitioners argued that the secrecy surrounding the use of untested drugs for execution is incompatible with human rights standards because the realization of specific rights imposes a duty of transparency on states, and that it undermines the public's right to information needed to establish whether deprivation of life is arbitrary or lawful. The petitioners affirmed that while international law does not per se prohibit the death penalty, it does limit the

methods that may be used to carry it out. In their view, countries that choose to retain the death penalty have a clear obligation to disclose the details of their application of the penalty, including the methods and protocols of execution, and must carry out the execution in a manner that "causes the least possible physical and mental suffering."

12. Petitioners indicated that the object of the petition is to challenge the following defects in the lethal injection protocol that will be applied in this case: (a) the protocol poses the risk of excruciating pain; (b) it is experimental, shrouded in secrecy and involves drug combinations that have not been approved by the Food and Drug Administration; and (c) it is administered by individuals who lack the necessary training. In light of the foregoing, the petitioners asked the Commission to determine that Mr. Bucklew's case presents violations of rights protected under the American Declaration, including the right to life (Article I), security of the person and freedom from cruel, infamous or unusual punishment (Article XXVI), and the rights to a fair trial and due process (Articles XVIII, XXVI).

B. Position of the State

13. The State asked the Commission to reconsider its decision on the admissibility of the instant case arguing that it "never received a petition under Article 23 of the Commission's Rules, nor a notice of consideration *motu propio* under Article 24 (...) rather the US received a request for precautionary measures." On this point the Commission notes that in its communication of May 20, 2014, it informed the United States about the processing of the petition and granted the timeframe provided in its Rules of Procedure to present allegations on its admissibility.

14. The State maintained that the American Declaration "is a nonbinding instrument and does not create legal rights or impose legal duties on member states of the Organization of American States." The State also informed that, although it considers precautionary measures to be a "nonbinding recommendation," it transmitted the request to the Governor and Attorney General of Missouri on May 20, 2014.

15. The State argued that the alleged victim has had access to an extensive domestic judicial review process in which his claims were reviewed. It indicated that the Missouri Supreme Court, after considering his claims raised at that point and weighing whether capital punishment was disproportionate, affirmed Mr. Bucklew's convictions on August 25, 1998. The State also made reference to the applications filed by the alleged victim, including requests for *certiorari* and habeas corpus, as well as the claims pursued by Mr. Bucklew and other death row inmates to challenge the lethal injection protocol in the state of Missouri. It further referred to the proceedings that took place in 2014 after an execution date was scheduled by the Missouri Supreme Court for May 21, 2014, and the stay of execution that was later granted.

16. The State alleged that any decision on the merits in this case would entail the fourth instance formula, which prevents the Commission from "freely second-guessing domestic courts' legal and evidentiary judgments calls." In this sense, the State reiterated that the alleged victim has had due process through many opportunities to challenge both his conviction for capital murder and the proposed method of execution.

17. In addition, the State argued that the claims concerning Missouri's current protocol and the

allegations on the secrecy surrounding such documents, should not be considered either, given the fourth instance standard as it concerns matters of domestic law. Nonetheless, the State maintained that there is sufficient public information regarding the details of Missouri's injection protocol, which in fact was taken into account to successfully secure a stay of execution from the U.S. Supreme Court in favor of the alleged victim. Therefore, the State considered that the right to due process has not been violated with respected to the alleged secrecy surrounding Missouri's protocol.

18. The State indicated that international law permits capital punishment when it is duly prescribed for the commission of the most serious crimes and carried out by a State in accordance with due process of law and stringent procedural safeguards, as it considers is the situation in the United States. Thus, the State affirmed that capital punishment is compatible with the right to life under international law and highlighted that the United States has not signed or ratified any international convention obligating it to abolish capital punishment.

19. As for lethal injection as a method of execution, the State alleged that this method has often been adopted as more humane than other methods that have been tried, and that the United Nations Human Rights Committee has found that lethal injection does not violate the International Covenant on Civil and Political Rights. The State contended that it should be given a "wide margin of appreciation," deferring to the discretion of local actors who have to deal with complicated medical and scientific circumstances and are in the best position to assess such matters. In this sense, the State referred to domestic decisions in other death penalty cases which found that lethal injection did not

constitute cruel and unusual punishment and was in fact deemed to be more humane than other methods.

III. PROVEN FACTS

A. The application of lethal injection in the State of Missouri

20. The Commission takes note of the Protocol for Preparation and Administration of Chemicals for Lethal Injection of the Missouri Department of Corrections. Under this protocol, the state of Missouri regulates different elements of the preparation and application of the lethal injection, such as: the execution team members, the preparation of chemicals, the intravenous lines, the monitoring of prisoners, the administration of chemicals and the documentation of chemicals.[5]

21. According to the text of the abovementioned protocol, medical personnel are responsible for the preparation of the lethal chemicals before the execution; for the determination of the most appropriate locations for intravenous (IV) lines and insertion; and for monitoring of the prisoner during the execution.[6] With regard to the insertion of the IV lines, the protocol calls for two, the primary IV line that may be inserted as a peripheral line or as a central venous line (e.g., femoral, jugular, or subclavian) provided they have appropriate training,

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[5] Missouri Department of Corrections. Preparation and Administration of Chemicals for Lethal Injection. Available at: https://deathpenaltyinfo.org/files/pdf/ExecutionProtocols/MissouriProtocol10.18.2013.pdf.

[6] Missouri Department of Corrections. Preparation and Administration of Chemicals for Lethal Injection. Available at: https://deathpenaltyinfo.org/files/pdf/ExecutionProtocols/MissouriProtocol10.18.2013.pdf.

education, and experience for that procedure; and the secondary IV line as a peripheral line. The second IV should not be used if the prisoner's physical condition makes it unduly difficult to insert more than one.

22. Additionally, the protocol calls for the execution team to be comprised of department employees and contracted medical personnel including a physician, nurse, and pharmacist. In general terms, it proscribes that the team will also include anyone selected by the department director "who provides direct support for the administration of lethal chemicals, including individuals who prescribe, compound, prepare, or otherwise supply the chemicals for use in the lethal injection procedure."[7] The members of the execution team under the observation of medical personnel are to be responsible for the injection of the chemicals into the prisoner.[8]

B. Russell Bucklew's criminal conviction and his medical condition

23. On May 1997, Mr. Bucklew was sentenced to death for first degree murder, after a jury trial. He also received prison sentences of 30 years for kidnapping, 30 years for burglary, 30 years for rape, and five years for armed criminal action.[9] Since then,

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[7] Missouri Department of Corrections. Preparation and Administration of Chemicals for Lethal Injection. Available at: https://deathpenaltyinfo.org/files/pdf/ExecutionProtocols/MissouriProtocol10.18.2013.pdf.

[8] Missouri Department of Corrections. Preparation and Administration of Chemicals for Lethal Injection. Available at: https://deathpenaltyinfo.org/files/pdf/ExecutionProtocols/MissouriProtocol10.18.2013.pdf.

[9] State's submission dated March 28, 2016, p.2. See also: Bucklew v. Lombardi, No. 14-8000-CV-W-BP.

Mr. Bucklew has been detained at the Potosi Correctional Center in Mineral Point, Missouri.[10]

24. The available information indicates that Mr. Bucklew's conviction and sentence were affirmed on direct appeal. Likewise, his petition for post-conviction relief was denied and this was affirmed by the Supreme Court of Missouri. Mr. Bucklew also filed a petition for a federal writ of *habeas corpus* which was denied and this was affirmed by the United States Eighth Circuit Court of Appeals. An application for *certiorari* to the U.S. Supreme Court was denied as well.[11]

25. It is not disputed that Mr. Bucklew suffers from a rare and congenital medical condition, known as "cavernous hemangioma."[12]

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[10] Initial petition before the IACHR, p. 6.

[11] See: Initial petition before the IACHR; State's submission dated March 28, 2016; and Bucklew v. Precythe, No. 17-3052, 2018 WL 1163360.

[12] Initial petition before the IACHR, p. 2. The petitioner explained that "carvernous hemangioma is a blood vessel condition that causes large tumors of malformed blood vessels to grow on Mr. Bucklew's head, face, and neck. Stricken with this condition since childhood, Mr. Bucklew frequently endures severe pain, nausea, dizziness and difficulty breathing. The tumors are so large that the blood vessels within them are distended and weak. Under stress, they rupture. His airway is compromised by a vascular tumor." Petitioner's submission dated March 14, 2018, p. 2. See also: Bucklew v. Lombardi, No. 14-8000-CV-W-BP.

C. Judicial actions challenging Missouri's lethal injection protocol

1. Judicial proceedings before 2014

26. According to the available information, Mr. Bucklew has filed three different judicial actions raising allegations regarding the lethal injection protocol in the State of Missouri, as well as specific considerations as to his medical condition and the use of certain drugs for the execution. The Commission does not have detailed information about the course of these proceedings, as the petitioners and the State only made brief references to them. In the State's submission dated March 28, 2016 it presented a brief timeline of these actions.

27. Specifically the State referred to the first suit filed in 2009 before the Missouri District Court by Mr. Bucklew and other death row inmates. According to the State, this suit challenged the lethal injection protocol in the state of Missouri and claimed that Missouri authorities did not obtain the drugs used in this method lawfully, that they were not prescribed by a licensed practitioner, and that these were not approved by the Federal Food and Drug Administration for use in lethal injections. Specifically this action sought a declaratory judgment that Missouri's lethal injection violates the Food, Drug and Cosmetic Act ("FDCA") as well as the Controlled Substances Act ("CSA").[13] The State indicated that, on May 19, 2009, the district court decided in favor of the Missouri

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[13] The State cited: Ringo v. Lombardi, No. 09-4095-CV-C-NKL, 2009 WL 1406980, at *1(W.D. Mo. May 19, 2009). State's submission dated March 28, 2016.

Department of Corrections.[14] This decision was then appealed to the Eighth Circuit Court of Appeals which dismissed the complaint considering that the protocol being challenged had changed due to supply issues. [15] In addition, the State mentioned that litigation was brought to unseal documents in the court's docket, including the deposition of an anesthesiologist, which the litigants considered could reveal key information about Missouri's execution procedures.[16] Lastly, the State said that, on January 6, 2016, the district court denied the request to unseal.

28. According to the State, the second suit was filed by Mr. Bucklew and a group of death row inmates in 2012 against various officials of the Missouri Department of Corrections. It claimed that Missouri's execution protocol creates a substantial risk of severe pain constituting cruel and unusual punishment; that the protocol constitutes deliberate indifference to serious medical needs in violation of due process; that the process for setting execution dates denies the inmates access to the courts in violation of due process; that the failure to comply with the injection protocol violates due process and equal protection rights; and that Missouri has concealed information from the public.[17] On May 2, 2014 the district court dismissed the case. The State affirmed at that time that litigation was still ongoing

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14 The State cited: Ringo v. Lombardi, No. 09-4095-CV-C-NKL, 2009 WL 1406980, at *1(W.D. Mo. May 19, 2009). State's submission dated March 28, 2016.

15 The State cited: Ringo v. Lombardi, 677 F.3d 793 (8th Cir. 2012). State's submission dated March 28, 2016.

16 State's submission dated March 28, 2016.

17 State's submission dated March 28, 2016, p.4.

on plaintiffs' motion to unseal documents from the docket for the public. The Commission does not have further information regarding this proceeding.

2. Judicial proceedings since 2014

29. Both parties referred in detail to the judicial proceedings initiated from 2014 to the present and which are summarized as follows.

30. On April 9, 2014 the Missouri Supreme Court set Mr. Bucklew's execution for May 21, 2014.[18]

31. On May 9, 2014 Mr. Bucklew filed a new lawsuit in the United States District Court for the Western District of Missouri, alleging that Missouri's lethal injection method posed a unique risk to him because of his medical condition. He also sought a preliminary injunction and a stay of execution. Among his allegations, Mr. Bucklew claimed that failing to take reasonable and necessary steps to assess the risk he would face during his execution "constitutes deliberate indifference to his serious medical needs and violates his rights under the Eighth Amendment and the Due Process Clause of the Fourteenth Amendment."[19]

32. On May 19, 2014 the district court denied both motions.[20] In its decision, the court reviewed affidavits from three experts submitted by Mr. Bucklew, and found that these were "insufficient to

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18 Initial petition before the IACHR, p. 6.

19 State's submission dated March 28, 2016, p.4 and petitioners' submission dated February 4, 2015, p. 8. They cited: Bucklew v. Lombardi, No. 14-8000-CV-W-BP, 2014.

20 State's submission dated March 28, 2016, p.4 and petitioners' submission dated February 4, 2015, p. 8. They cited: Bucklew v. Lombardi, No. 14-8000-CV-W-BP, 2014.

conclude that any adverse consequences [Mr. Bucklew] may suffer rise to the level of unconstitutional pain." Moreover the court considered that:

> Although the affidavits contain words such as "significant" and "substantial risk," a closer look reveals that the affidavits do not contain the specificity necessary to prevail on an Eighth Amendment claim. For example, when discussing the possibility of adverse drug interactions, [Expert Z.] fails to explain how the medications could interact to increase Bucklew's pain. Although he concludes there is a substantial risk that drug interactions could cause pain, he bases this conclusion on the fact that medications "may" interact with pentobarbital. When discussing the possibility that the lethal drug will not circulate as intended, there is no explanation as to how the drug should circulate or will circulate. Similarly there is no explanation as to how he defines "prolonged" or "extremely painful." Lastly, the affidavits are void of discussion regarding the length of time Bucklew may suffer pain. [...] *See Fierro v. Gomez* [...] (determining that execution by lethal gas is cruel and unusual punishment by considering: (1) the extreme pain an inmate would suffer; (2) the specific length of time this extreme pain lasts; and (3) the substantial risk that an inmate will suffer this extreme pain for several minutes); *see also Brewer v. Landrigan*, 131 S. Ct. 445 (2010) (holding that "speculation cannot substitute for evidence that the use of the drug is sure or very likely to cause serious illness and needless suffering") [...] *Whitaker v.*

> *Livingston*, 732 F.3d 465, 468-69 (5th Cir. 2013)("It is indeed not unreasonable to assume that if a prisoner has the right to be free from a demonstrated risk of severe pain when compared to a known and available alternative, he ought to have the opportunity to prove the risk of pain and the availability of alternatives. Even so, plaintiffs must point to *some* likelihood that such pain will be severe and that some alternative may exist. It is unacceptable to claim that some unspecified amount of time is required, just in case they might be able to show that there might be some risk of potentially excessive pain ...." "[U]nknown unknowns [about the dangerous propensity of a drug used for lethal injection] are insufficient to demonstrate a risk of harm; something more is needed to meet the difficult preliminary-injunction standard.")[21]

33. Mr. Bucklew appealed this decision to the United States Court of Appeals for the Eighth Circuit. On May 20, 2014 the Eighth Circuit initially reversed this decision and granted the stay of execution, the motion having been heard by a three-judge panel and granted by a vote of 2-1. Immediately on the same date, the Eighth Circuit later sitting *en banc* reversed the ruling of the panel, and decided the execution would proceed.[22]

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[21] Bucklew v. Lombardi, No. 14-8000-CV-W-BP, 2014.

[22] State's submission dated March 28, 2016, p.4 and petitioner's submission dated February 4, 2015, p. 8. They cited: Bucklew v. Lombardi, 565 F. App'x 562, 564 (8th Cir.), opinion vacated on rehearing en banc (May 20, 2014); and Bucklew v. Lombardi, 565 F. App'x 562 (8thCir. 2014), rev'd en banc (mem.).

34. Mr. Bucklew then applied to the U.S. Supreme Court for a stay of execution. On May 21, 2014, the U.S. Supreme Court ordered that the execution be stayed, pending disposition of the appeal by the Eighth Circuit.[23]

35. On March 6, 2015 the Eighth Circuit Court ruled that in dismissing Mr. Bucklew's complaint the federal district court erred "because it was not patently obvious that he could not prevail or that an amendment to the complaint would be futile."[24] The Eighth Circuit Court remanded the case to the district court to further examine petitioner's proposed alternatives to the current protocol and Missouri's willingness to alter its procedure to accommodate those alternatives. At the time, the State indicated that "this ruling technically ended the Supreme Court's stay of execution, but the Missouri Supreme Court has not set a new date of execution, so the effect has been that of an indefinite stay."[25]

36. After the mandate issued by the Eighth Circuit Court, Mr. Bucklew filed several amended complaints, three of which were dismissed. The fourth amended complaint asserted an Eighth Amendment challenge, alleging that Missouri's method of execution is unconstitutional if applied to Mr. Bucklew due to his medical condition. Further

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23 State's submission dated March 28, 2016, p.4 and petitioner's submission dated February 4, 2015, p. 4. They cited: Bucklew v. Lombardi, 134 S. Ct. 2333 (2014). 572 U.S. Order 13A1153 (May 21, 2014) (staying the case and denying certiorari); Order, Bucklew v. Missouri, Case No. 13-10165 (U.S. May 20, 2014); and Bucklew v. Lombardi, Case No. 14-2163 (8th Cir. May 20, 2014).

24 Petitioners' submission dated March 14, 2018, p. 1.

25 State's submission dated March 28, 2016, p.5.

specific allegations in this last amended complaint indicated that using any lethal drug and carrying out the execution by lethal injection will pose "an enormous risk that Mr. Bucklew will suffer extreme, excruciating and prolonged pain- all accompanied by choking and struggling for air." It was also alleged that allowing Mr. Bucklew the possibility to adjust in the gurney would not be sufficient, as "the stress of the execution may unavoidably cause Mr. Bucklew's hemangiomas to rupture, leading to hemorrhaging, bleeding in his throat and through his facial orifices, and coughing and choking on his own blood." In addition, it was requested that a complete set of imaging studies be conducted to fully evaluate and establish the risks involved in the execution by lethal injection considering his medical condition.[26]

37. On June 15, 2017, the district court granted summary judgment at the Missouri Department of Corrections' request, after finding that Mr. Bucklew's complaint failed to show that execution by nitrogen hypoxia would substantially reduce the risk of pain or suffering.[27]

38. A copy of this decision is included in the Commission's case file. The pertinent parts of the ruling are summarized as follows.[28]

39. The decision took into consideration the available information on Missouri's death penalty protocol, stating that while such information "has not been succinctly described" the parties "implicitly agree" that it involves the intravenous administration

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[26] See: Bucklew v. Precythe, No. 17-3052, 2018 WL 1163360.

[27] Petitioner's submission dated March 14, 2018, p. 2.

[28] Bucklew v. Lombardi, No. 14-8000-CV-W-BP.

of pentobarbital. The court also referred to Mr. Bucklew's medical condition, but stated that from the pertinent parts of the protocol it is confirmed that "a central line in the femoral vein may be used instead of inserting an IV in the peripheral veins."[29] It also considered the information on the risk of Mr. Bucklew's femoral vein rupturing, based on the expert opinion proposed by Mr. Bucklew's defense, who "testified that the femoral vein is large and capable of 'taking a fair amount of fluid' when the central line is properly placed, and the risk of that vein rupturing is 'unlikely.'" Based on this expertise, the court asserted that "the risk of [Mr. Bucklew's] veins rupturing was limited to his peripheral veins. According to the expert, there was no reason to believe that Mr. Bucklew's medical condition "made his femoral vein more susceptible to rupture than might otherwise be expected."

40. In addition and based on the file record, the court established that Mr. Bucklew's medical condition "will not affect the flow of chemicals in his bloodstream once they are introduced through the femoral vein, or otherwise affect his expected response to the pentobarbital."

41. As for the factual disputes, the court also noted that these involved (i) Mr. Bucklew's ability to adjust his breathing once the pentobarbital begins to take effect, since it was claimed that due to his medical condition he has difficulty breathing while in

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[29] The Court noted that this scenario was "assuming that an IV could be placed [in the peripheral veins] in the first place" considering the agreement from the parties that because of the "cavernous hemangioma" Mr. Bucklew's peripheral veins cannot be used for the execution because "of the risk that they will rupture."

the "supine position," which is the position required for inserting a central line:[30] and (ii) how quickly the pentobarbital will deprive Mr. Bucklew "of the ability to sense that he is choking or unable to breathe." While the court referred to expert opinions from both Mr. Bucklew's defense and the Missouri Department of Corrections on this latter point, which were contradictory, the decision stated that the issue could not be resolved on summary judgment.[31]

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[30] On this point, the decision recalled that "when required to be on his back [Mr. Bucklew] can adjust his breathing so that he can remain in that position" for instance as it was possible for him "to lie on his back approximately an hour while undergoing an MRI." Bucklew v. Lombardi, No. 14-8000-CV-W-BP.

[31] The pertinent parts of these expert opinions are referred to in the decision of the Eighth Circuit Court of Appeals dated March 6, 2018:

> Bucklew's expert opined that his condition will cause him to experience severe choking and suffocation during execution by lethal injection. When Bucklew is supine, gravity pulls the hemangioma tumor into his throat which causes his breathing to be labored and the tumor to rupture and bleed. When conscious, Bucklew can "adjust" his breathing with repeated swallowing that prevents the tumor from blocking his airway. But during the "twilight stage" of a lethal injection execution, [expert] Dr. Zivot opined that Bucklew will be aware he is choking on his own blood and in pain before the pentobarbital renders him unconscious and unaware of pain. Based on a study of lethal injections in horses, Dr. Zivot estimated there could be a period as short as 52 seconds and as long as 240 seconds when Bucklew is conscious but immobile and unable to adjust his breathing; his attempts to breath will create friction, causing the tumor to bleed and possibly hemorrhage. In Dr. Zivot's opinion, there is a "very, very high likelihood" that Bucklew will suffer "choking complications, including visible hemorrhaging," if he is

42. In sum, the court established that "construing the record in [Mr. Bucklew's] favor reveals that it could be fifty-two to 240 seconds before the pentobarbital induces a state in which [Mr. Bucklew] could no longer sense that he is choking or unable to breathe."

43. As for the legal analysis, the court considered the ruling of the Supreme Court in *Glossip v. Gross* on "what a prisoner must establish to succeed on an Eighth Amendment method-of-execution claim," which requires him or her: (i) to establish that the method to be utilized "presents a risk that is sure or very likely to cause serious illness and needless suffering, and give rise to sufficiently imminent

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executed by *any* means of lethal injection, including using the drug pentobarbital.

According to [Missouri Department of Corrections, expert] Dr. Antognini, pentobarbital causes death by "producing rapid, deep unconscious[ness], respiratory depression, followed by... complete absence of respiration, decreased oxygen levels, slowing of the heart, and then the heart stopping." In contrast to Dr. Zivot, Dr. Antognini opined that pentobarbital would cause "rapid and deep unconsciousness" within 20-30 seconds of entering Bucklew's blood stream, rendering him insensate to bleeding and choking sensations. Dr. Antognini also challenged Dr. Zivot's opinion that a supine Bucklew, unable to adjust his breathing, will be aware he is choking on his own blood and in pain from the tumor blocking his airway before the pentobarbital renders him unconscious. Dr. Antognini noted that, between 2000 and 2003, Bucklew underwent general anesthesia eight times, at least once in a supine position. In December 2016, Bucklew lay supine for over an hour undergoing an MRI, with no more than discomfort. The MRI revealed that his tumor had slightly shrunk since 2010.

See: Bucklew v. Precythe, No. 17-3052, 2018 WL 1163360.

dangers;" (ii) to "identify a known and available alternative method of execution that entails a lesser risk of pain," this alternative must be "feasible, readily implemented, and in fact significantly reduce [the] substantial risk of severe pain."

44. On the risk of serious illness or suffering, the court concluded that inserting the line in Mr. Bucklew's femoral vein "does not present any risk of serious illness or needless suffering;" and that from the file record it was not possible to establish a "conclusive determination regarding the risk that [Mr. Bucklew] will choke and be unable to breathe for a period of time that would violate the Eighth Amendment."

45. Among other considerations, the court noted that Mr. Bucklew was not able to establish a legal argument to discuss the evidence presented by the Missouri Department of Corrections indicating that the line could be inserted in his femoral vein to administer the execution drugs. In this regard, the decision acknowledged that the factual issues raised by Mr. Bucklew's allegations addressed the "potential difficulty in locating the femoral vein and the fact that medical personnel might require multiple attempts to locate it... [which as alleged by Mr. Bucklew] will increase his stress, thereby increasing his breathing rate and making it more likely that he will choke." The court concluded that Mr. Bucklew did not quantify such risks nor did he explain how these facts independently establish that Missouri's current protocol presented a risk of serious illness or needless suffering for him. The court also dismissed this allegation based on its speculative nature and that an Eighth Amendment claim cannot be grounded on the likelihood that the medical procedure would be performed incorrectly.

46. In addition, considering the factual dispute as to how long Mr. Bucklew will be aware that he is choking or unable to breathe but unable to adjust his breathing to remedy this situation after the drugs are administered, the court reiterated that these issues could not be resolved on summary judgment but at trial. The court stated that "solely for purposes of further discussion, ...[it] presume[d] that there is a substantial risk that [Mr. Bucklew] will experience choking and an inability to breathe for up to four minutes."

47. On the alternative measures standard, the court considered Mr. Bucklew's request that the execution be performed with nitrogen gas-induced hypoxia as he contended that it will "significantly reduce the risks of severe pain and suffering." Regarding this allegation, Mr. Bucklew also raised opposition to the application of the *Glossip* standard to his case contending that this judgment involved "*facial challenge*" while his case presented an "*as-applied challenge.*" The court dismissed this argument deeming there was no distinction set by the *Glossip* standard between these two possible challenges.

48. The decision then analyzed two main questions: (i) whether the use of nitrogen gas will cause Mr. Bucklew "to become unaware of his choking and breathing difficulties sooner than he would under the current protocol," which is expected to cover four minutes if the pentobarbital is used; and (ii) whether "that difference in time [was] sufficient to permit the court to find that nitrogen gas will make a 'significant' difference in [Mr. Bucklew] suffering." Mainly the court considered one of the expert opinions based on which it established that there was no significant difference between these two methods,

nor in the "speed" of their lethal effect. In general, the court considered that Mr. Bucklew did not provide sufficient and competent evidence to support that the effects of nitrogen gas will act faster than pentobarbital.

49. On March 6, 2018, the Eighth Circuit Court of Appeals affirmed the district court's grant of summary judgment in favor of the Missouri Department of Corrections, and dismissed Mr. Bucklew's challenge to lethal injection in his case. Circuit Judge Colloton dissented. The pertinent parts of the ruling and the dissent are summarized as follows.[32]

50. The decision centered the debate on whether the Eighth and Fourteenth Amendments would bar Missouri authorities from employing a procedure that is authorized by Missouri statute to execute Mr. Bucklew. The court analyzed the information from the two expert opinions presented by the parties as well as the application of the *Glossip* standard. The ruling also noted that, while the challenged decision declined to rely on the likelihood of needless suffering, it established that Mr. Bucklew failed to provide "adequate evidence" that the alternative method of execution he proposed would "significantly reduce a substantial risk of severe pain."

51. Considering the issue as to whether a method of execution would constitute cruel and unusual punishment, the court deemed it appropriate to rule on this specific "issue of law" by summary judgment. The court then considered that:

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[32] Bucklew v. Precythe, No. 17-3052, 2018 WL 1163360.

- Nitrogen hypoxia is an authorized method of execution under Missouri Law, but it has not been used since 1965 and does not have a protocol in force for execution by lethal gas;
- Even though Mr. Bucklew was allowed to submit "extensive discovery" regarding his proposed method of execution, given "Missouri's lack of recent experience such discovery produced little relevant evidence and no evidence that the risk posed by lethal injection is substantial when compared to the risk by lethal gas;"
- Neither the assessment provided by Mr. Bucklew's appointed expert nor the State's expert were conclusive or sufficient to support the use of lethal gas as opposed to lethal injection;
- Comparing both expert opinions at the request of Mr. Bucklew regarding the time it will take him to be unconscious or to cause him brain death, the decision establishes that "both methods would result in unconsciousness in approximately the same amount of time;"
- Mr. Bucklew's claim on experiencing choking sensations if lethal injection is used, rests on the proposition that he could not be seated, which would be possible with lethal gas, but this argument lacks factual support in the record and in particular, there was no assertion as to what changes this would require in applying Missouri's lethal injection protocol in his execution;

- The Director of Corrections has the authority to make changes in the execution protocol such as how the primary IV line will be inserted in the central femoral vein or how the gurney will be positioned, if the execution team advises that changes are needed during the preparation;
- While Mr. Bucklew sought and was denied discovery of the identities of the execution team's medical members, he never urged the district court to establish a suitable fact-finding procedure for discovery of facts needed for the Director of Corrections to define the as-applied challenge in using the current lethal injection protocol on him;
- While the Director of Corrections had proposed to reposition the gurney during the execution, the record does not disclose whether Mr. Bucklew will in fact be supine during the execution nor does it disclose that a "cut-down" procedure will not be used to place the primary IV line in his central femoral vein, a procedure that was considered unnecessary by the State's expert; and,
- Mr. Bucklew's allegations are based on speculation that the Missouri authorities will employ such risk-increasing procedures.

52. In conclusion and based on the foregoing, the court reaffirmed that there was no basis to conclude Mr. Bucklew's "risk of severe pain would be substantially reduced by use of nitrogen hypoxia instead of lethal injection as the method of execution" and that he therefore failed to establish that lethal injection as applied to him would constitute cruel and

unusual punishment under the Eighth and Fourteenth Amendments.

53. The ruling also dismissed Mr. Bucklew's claim for access to background information on the members of the execution team, in particular the technicians' qualifications, training and experience. The decision considered that these arguments proceeded from the premise that the State's personnel "may not be qualified for the positions for which they have been hired" or that they "are incompetent or unqualified to perform their assigned duties." Moreover the court recalled that "the potentiality that something may go wrong in an execution does not give rise to an Eighth Amendment violation" as "some risk of pain is inherent in any method of execution –no matter how humane- if only from the prospect of error in following the required procedure." It also evoked its previous decision stating that Mr. Bucklew "may not be permitted to supervise every step of the execution process" and that it must be assumed that "those responsible for carrying out the sentence are competent and qualified to do so, and that the procedure will go as intended."

54. As for the dissenting opinion of Judge Collon, the Commission notes that it was based on the consideration that the case involved "genuine disputes of material fact that require findings of fact by the district court before this dispute can be resolved." Therefore Judge Collon was of the opinion that the case should be remanded to the district court to promptly conduct further proceedings.

55. Mr. Bucklew's execution is scheduled for March 20, 2018.

IV. ANALYSIS OF LAW

56. Taking into account the arguments of the parties and the proven facts, the Commission will conduct its analysis of law in the following order: i) Preliminary considerations on the IACHR's standard of review in cases involving the death penalty; ii) Right to humane treatment, and not to undergo cruel, degrading, and unusual punishment, and right to a fair trial in relation to the method of execution and judicial remedies; iii) Right to humane treatment, and not to undergo cruel, degrading, and unusual punishment in relation to Mr. Bucklew's time on death row; and iv) The right to life and not to receive cruel, infamous, or unusual punishment with respect to an eventual execution.

A. Preliminary considerations on the IACHR's standard of review in cases involving the death penalty

57. Before embarking on its analysis of the merits in the instant case, the Inter-American Commission considers it relevant to reiterate its previous decisions regarding the heightened scrutiny to be applied in cases involving the death penalty. The right to life has received broad recognition as the supreme human right and as a *condition sine qua non* for the enjoyment of all other rights.

58. That gives rise to the particular importance of the IACHR's obligation to ensure that any deprivation of life that may arise from the enforcement of the death penalty strictly abides by the requirements set forth in the applicable instruments of the Inter-American human rights

system, including the American Declaration.[33] That heightened scrutiny is consistent with the restrictive approach adopted by other international human rights bodies when analyzing cases that involve the imposition of the death penalty,[34] and it has been set out and applied by the Inter-American Commission in previous capital cases brought before it.[35]

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[33] See, in this respect, IACHR, The death penalty in the Inter-American System of Human Rights: From restrictions to abolition, OEA/Ser.L/V/II.Doc. 68, December 31, 2011.

[34] See, for example: I/A Court H. R., Advisory Opinion OC-16/99 (October 1, 1999), *The Right to Information on Consular Assistance in the Framework of the Guarantees of the Due Process of Law*, para. 136 (finding that "because execution of the death penalty is irreversible, the strictest and most rigorous enforcement of judicial guarantees is required of the State so that those guarantees are not violated and a human life is not arbitrarily taken as a result"); United Nations Human Rights Committee, *Baboheram-Adhin et al. v. Suriname*, Communications Nos. 148-154/1983, adopted on April 4, 1985, para. 14.3 (observing that "the law must strictly control and limit the circumstances in which a person may be deprived of his life by the authorities of a State"); *Report of the United Nations Special Rapporteur on Extrajudicial Executions*, Bacre Waly Ndiaye, submitted pursuant to Commission on Human Rights Resolution 1994/82, Question of the Violation of Human Rights and Fundamental Freedoms in any part of the World, with particular reference to Colonial and Other Dependent Countries and Territories, UN Doc.E/CN.4/1995/61 (December 14, 1994) ("the Ndiaye Report"), para. 378 (emphasizing that in capital cases, it is the application of the standards of fair trial to each and every case that needs to be ensured and, in case of indications to the contrary, verified, in accordance with the obligation under international law to conduct exhaustive and impartial investigations into all allegations of violation of the right to life).

[35] IACHR, Report No. 11/15, Case 12.833, Merits (Publication), Felix Rocha Diaz, United States, March 23, 2015, para. 54; Report No. 44/14, Case 12.873, Merits (Publication),

59. As the Inter-American Commission has explained, this standard of review is the necessary consequence of the specific penalty at issue and the right to a fair trial and all attendant due process guarantees, among others.[36] In the words of the Commission:

> due in part to its irrevocable and irreversible nature, the death penalty is a form of punishment that differs in substance as well as in degree in comparison with other means of punishment, and therefore warrants a particularly stringent need for reliability in determining whether a person is responsible for a crime that carries a penalty of death.[37]

60. The Inter-American Commission will therefore review the petitioner's allegations in the present case with a heightened level of scrutiny, to ensure in particular that the rights to life, due process and fair trial, among others set out in the American Declaration have been respected by the State. With regard to the legal status of the American Declaration, the IACHR reiterates that:

> [t]he American Declaration is, for the Member States not parties to the American Convention, the source of international obligations related

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Edgar Tamayo Arias, United States, July 17, 2014, para. 127; Report No. 57/96, Andrews, United States, IACHR Annual Report 1997, paras. 170-171.

[36] IACHR, The death penalty in the Inter-American System of Human Rights: From restrictions to abolition, OEA/Ser.L/V/II.Doc. 68, December 31, 2011, para. 41.

[37] IACHR, Report No. 78/07, Case 12.265, Merits (Publication), Chad Roger Goodman, The Bahamas, October 15, 2007, para. 34.

> to the OAS Charter. The Charter of the Organization gave the IACHR the principal function of promoting the observance and protection of human rights in the Member States. Article 106 of the OAS Charter does not, however, list or define those rights. The General Assembly of the OAS at its Ninth Regular Period of Sessions, held in La Paz, Bolivia, in October, 1979, agreed that those rights are those enunciated and defined in the American Declaration. Therefore, the American Declaration crystallizes the fundamental principles recognized by the American States. The OAS General Assembly has also repeatedly recognized that the American Declaration is a source of international obligations for the member states of the OAS.[38]

61. Finally, and bearing in mind the State's position, the Commission recalls that its review does not consist of determining that the death penalty and of itself violates the American Declaration. What this section addresses is the standard of review of the alleged human rights violations in the context of a judicial process culminating in the death penalty.

B. Right to humane treatment, and not to undergo cruel, degrading, and unusual punishment and right to a fair trial in relation to the method of execution and judicial remedies

62. Article XVIII of the American Declaration establishes the right to judicial protection as follows:

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38 IACHR, Report No. 44/14, Case 12,873, Report on Merits (Publication), Edgar Tamayo Arias, United States, July 17, 2014, para. 214.

> Every person may resort to the courts to ensure respect for his legal rights. There should likewise be available to him a simple, brief procedure whereby the courts will protect him from acts of authority that, to his prejudice, violate any fundamental constitutional rights.

63. Article XXVI of the American Declaration establishes the right to due process as follows:

> (...) Every person accused of an offense has the right (...) not to receive cruel, infamous or unusual punishment.

1. General considerations

64. The Commission notes that even though the American Declaration does not prohibit the death penalty, the State has a heightened obligation to ensure that the method of execution does not constitute cruel, infamous or unusual punishment. In this regard, the U.N. Special Rapporteur on torture and other cruel, inhuman or degrading treatment or punishment observed that "[t]he fact that a number of execution methods have been deemed to constitute torture or CIDT, together with a growing trend to review all methods of execution for their potential to cause severe pain and suffering, highlights the increasing difficulty with which a state may impose the death penalty without violating international law."[39]

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[39] The death penalty and the absolute prohibition of Torture and Cruel, Inhuman, and Degrading Treatment or Punishment, Juan E. Mendez, Human Right Brief, Volume 20, Issue 1, Article 1, p. 3.

65. Along these same lines, various supervisory bodies have considered that an execution method is incompatible with the right to humane treatment and the prohibition of torture when it is not designed to inflict the least possible suffering,[40] and have raised questions on the compatibility of the method of lethal injection with the prohibition of torture.

66. The Special Rapporteur on Extrajudicial, Summary or Arbitrary Executions has indicated with respect to the methods for the execution of the death penalty that

> the extraordinary power conferred on the State to end a person's life through a firing squad, hanging, lethal injection or other means to kill, poses a dangerous risk of abuse. This power can be kept under control only through the public supervision of the punishment. It is a commonplace that due process serves to protect the accused. However, due process is also a mechanism through which society ensures that the punishments inflicted on their behalf are fair.[41]

67. The Human Rights Committee has considered that when the death penalty is applied by a State

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[40] In that respect, guideline xi) of the "UE Guidelines on Death Penalty" establishes that "Where capital punishment occurs, it shall be carried out so as to inflict the minimum possible suffering. It may not be carried out in public or in any other degrading manner EU Guidelines on the Death Penalty: revised and updated version.

[41] A/HRC/30/18, Human Rights Council, Capital punishment and the implementation of the safeguards guaranteeing protection of the rights of those facing the death penalty, Yearly supplement of the Secretary-General to his quinquennial report on capital punishment, para. 50.

party for the most serious crimes, it must not only be strictly limited in accordance with Article 6 of the International Covenant on Civil and Political Rights (ICCPR) but must also be carried out in such a way as to cause the least possible physical and mental suffering.[42] The Committee has evaluated the methods of execution of the death penalty in light of the prohibition of torture and cruel, inhuman or degrading treatment provided for in the ICCPR and has concluded that the methods of stoning[43], injection of untested lethal drugs, gas chambers,[44] burning and burying alive,[45] and public executions[46] are contrary to Article 7.[47]

68. With regard to the injection of untested lethal drugs, in its concluding observations on the fourth periodic report of the United States, the Human Rights Committee noted with concern reports "about the administration, by some states, of untested lethal drugs to execute prisoners and the withholding of information about such drugs." The Committee recommended that the State "ensure that lethal

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42 Human Rights Committee, General Comment No: 20: Article 7 (Prohibition of Torture, or Other Cruel, Inhuman or Degrading Treatment or Punishment), 10 March 1992, para. 6.

43 Human Rights Committee, Concluding Observations: Iran (2011), para. 12.

44 Human Rights Committee, Communication No. 469/1991, Ng v Canada, Views adopted on 5 Nov 1993, para. 16.4.

45 Human Rights Committee, Malawi Africa Association v Mauritania, Report of the ACHPR of 11 May 2000, para. 120.

46 Concluding Observations: Democratic Republic of Korea (2001), para. 13.

47 See Human Rights Committee, Draft General Comment No.36 on Article 6 of the International Covenant on Civil and Political Rights, on the right to life, para 44.

drugs used for executions originate from legal, regulated sources, and are approved by the United States Food and Drug Administration and that information on the origin and composition of such drugs is made available to individuals scheduled for execution."[48]

69. Similarly, the Committee Against Torture has expressed its concerned that death penalty executions in the United States can be accompanied by severe pain and suffering and has called on the State to "carefully review its execution methods, in particular lethal injection, in order to prevent severe pain and suffering."[49]

70. The Special Rapporteur on torture and other cruel, inhuman or degrading treatment or punishment has considered that the method of lethal injection "as currently administered, does not work as efficiently as intended. Some prisoners take minutes to die and others become very distressed. New studies conclude that even if lethal injection is administered without technical error, those executed may experience suffocation, and therefore the conventional view of lethal injection as peaceful and painless death is questionable."[50] The Special Rapporteur has underlined that States must ensure that the method of execution employed causes the least possible physical

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[48] Human Rights Committee, Concluding observations on the fourth periodic report of the United States of America, CCPR/C/USA/CO/4, para. 8.

[49] Committee against Torture, Conclusions and recommendations of the Committee against Torture, United States of America, 25 July 2006, CAT/C/USA/CO/2, para. 31.

[50] Interim Report of the Special Rapporteur on torture and other cruel, inhuman or degrading treatment or punishment, A/67/229, 9 August 2012, para. 38.

and mental suffering and has the burden of proof of establishing that there are no more humane alternatives available. [51]

71. In capital cases the State has an enhanced obligation to ensure that the person sentenced to death has access to all the relevant information regarding the manner in which he or she is going to die. In particular, the convicted person must have access to information related to the precise procedures to be followed, the drugs and doses to be used in the case of execution by lethal injection, and the composition of the execution team as well as the training of its members.[52]

72. Any person subjected to the death penalty must have the opportunity to challenge every aspect of the execution procedure and such information is necessary to file a challenge. The IACHR notes in this regard that the obligation of the State to provide due process is not limited to the conviction and post-conviction proceedings.[53] Accordingly, the State has the duty to inform the person sentenced to death, in a timely manner, about the drug and method of execution that will be used, so he or she is not precluded from litigating the right to be executed in a manner devoid of cruel and unusual suffering.

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51 Interim Report of the Special Rapporteur on torture and other cruel, inhuman or degrading treatment or punishment, A/67/229, 9 August 2012, para. 80 (b).

52 IACHR, Report No. 53/13, Case 12.864, Merits (Publication), Ivan Teleguz, United States, July 15, 2013, para. 123.

53 IACHR, Report No. 53/13, Case 12.864, Merits (Publication), Ivan Teleguz, United States, July 15, 2013, para. 123.

2. Analysis of the case

73. The Commission notes that it is undisputed that Mr. Bucklew, sentenced to the death penalty in 1997, suffers from "cavernous hemangioma," a rare and congenital medical condition that causes large tumors of malformed blood vessels to grow on his head, face and neck. These tumors cause difficulty breathing and rupture under stress. The petitioners have argued before the Commission and the domestic judicial authorities that, due to this condition, there is a high risk that the application of Missouri's protocol of execution for lethal injection will cause excruciating suffering and pain to Mr. Bucklew. Taking into account the standard of the U.S. Supreme Court for these cases, Mr. Bucklew proposed "nitrogen hypoxia" as the alternative that could cause him less pain. As established in the proven facts, domestic judicial proceedings regarding this claim ended on March 6, 2018, with a decision of the Eight Circuit Court of Appeals in favor of the Missouri Department of Corrections and dismissing Mr. Bucklew's allegations. As of the date of the present report, his execution is scheduled for March 20, 2018.

74. The IACHR must analyze whether the United States provided an effective judicial remedy to Mr. Bucklew, and whether its actions and omissions during the judicial proceedings were compatible with its international obligations under the American Declaration, including strict compliance with the right not to be subjected to torture and cruel, infamous or unusual punishment.

75. From the judgments of June 15, 2017 and March 6, 2018 described in the proven facts, the Commission finds that they were clearly decided on

the basis of the standards set out by the U.S. Supreme Court in *Glossip v. Gloss*. The Commission recalls that according to that judgment, the prisoner has the burden to demonstrate three concurring elements: (i) that the method to be applied "presents a risk that is sure or very likely to cause serious illness and needless suffering and give rise to sufficiently imminent dangers;" (ii) the identification of a "known and available alternative method" that entails a lesser risk of pain; and (iii) that this alternative is "feasible, readily implemented" and would "in fact significantly reduce" the risk of severe pain.

76. The Commission notes that the burden of argumentation and proof with respect of each of the three elements resides primarily with the prisoner, and that the standard to be met to establish the three concurring elements jointly considered is very high. The IACHR considers that the effectiveness of a remedy that imposes such burdens in order to succeed must be analyzed taking into account that, in the instant case, access to justice is directly linked to the prohibition of torture and cruel and inhumane punishments. Therefore, it must be analyzed under the undisputed premise that the prohibition of torture is a peremptory norm of international law. Also, that under the American Declaration and other principal human rights instruments the use of torture and cruel and inhumane punishment is strictly prohibited. The United States has an obligation to ensure that no such treatment is imposed on persons under its jurisdiction, and this has implications in the analysis of judicial proceedings related to methods of execution that could breach that obligation.

77. The fact that the United States international obligations do not prohibit the death penalty does not mean that in can be imposed in a manner that could entail torture or inhumane or cruel treatment. In death penalty cases, in the event that the State becomes aware that there is a significant risk that the specific method of execution could cause a breach of its international obligations, including peremptory norms of international law, it is required to abstain from proceeding with the execution under those circumstances, regardless of whether there is an alternative method.

78. In the instant case, the judicial proceedings described in the proven facts reflect that, since 2014, Mr. Bucklew's defense has been presenting information on the risk that he would suffer excruciating pain upon the application of Missouri's protocol of execution by lethal injection. These arguments were supported by an expert opinion that established that, if subjected to execution by the existing protocol for lethal injection, during the execution Mr. Bucklew "will be aware he is choking on his own blood and in pain before the pentobarbital renders him unconscious and unaware of pain." The expert indicated that the period of suffering in such circumstances could last up to four minutes. The Commission considers that this particular risk of choking on his own blood, being aware of it, and for a period of up to four minutes, taking in consideration the context of extreme stress and anxiety, would constitute cruel and inhuman punishment. The IACHR finds that the severity of the suffering that would be imposed under such circumstances could amount to torture.

79. The Commission notes that the Missouri Department of Corrections presented another expert

opinion challenging, among other issues, the length of the period of time during which Mr. Bucklew would suffer. Because the district court ruled in favor of the Department of Corrections at the stage of summary judgment, the factual determinations were not fully litigated. In light of the findings at the stage of summary judgment, both the district court and the Eighth Circuit Court of Appeals found that Mr. Bucklew's defense had not sufficiently established the risk of needless suffering under the first requirement of *Glossip v. Gloss*. The decisions of June 15, 2017 and March 6, 2018 indicate that the courts ruled in favor of summary dismissal of the claims without a full trial to explore and resolve these factual disputes, taking into account that, in any case, Mr. Bucklew failed to demonstrate the existence of an alternative that would significantly reduce the level of pain.

80. The Commission highlights that the relevant question under the American Declaration is not the relative merits of lethal injection versus "nitrogen hypoxia" but whether the method planned to execute Mr. Bucklew will cause cruel and inhuman punishment or torture. Consequently, the main issue for analysis in light of the prohibition of cruel and inhuman punishment and torture is precisely the "factual disputes" with regard to the level and likelihood of suffering that execution by means of lethal injection would cause to Mr. Bucklew. The IACHR reiterates that, under peremptory norms of international human rights law and as reflected in the American Declaration, the United States has the duty to abstain from carrying out an execution when there is significant risk that it would breach the prohibition of cruel and inhuman treatment or torture. Compliance with this duty cannot be conditioned on the existence of "alternatives."

81. In this case, a very concrete risk of extreme suffering was presented to the courts by means of allegations and an expert opinion on the particular situation of Mr. Bucklew. Under international law, judicial authorities had the obligation to respond with due diligence to fully consider that risk before authorizing that execution could proceed. The district court identified the existence of factual disputes regarding the extent to which and length of time during which Mr. Bucklew would be aware of choking and being unable to breathe and that those disputes could not be resolved on summary judgment but only through a trial. For purposes of analysis, the district court "presume[d] that there is a substantial risk that [Mr. Bucklew] will experience choking and an inability to breathe for up to four minutes." The domestic courts, while accepting the existence of a specific risk in the particular situation of Mr. Bucklew, and expressly recognizing that key factual questions could not be fully resolved by means of a summary judgment, decided to proceed with the execution because Mr. Bucklew's defense had failed to establish the existence of an alternative method that would reduce the suffering.

82. The Commission considers that the summary dismissal of such claims demonstrates a failure to act with due diligence to fully examine them in light of the prohibition of torture and cruel and inhuman punishment. The Commission also observes that the standards applied effectively condition the granting of relief from a situation of cruel and inhuman treatment on a showing by the person concerned of a feasible alternative that will cause less suffering. What is required is a process that fully explores the possibility of the risk of cruel and inhuman suffering. Both the conditionality and the placing of the burden

of proof on the affected person are inconsistent with the guarantees required from an OAS Member State.

83. Taking into account the considerations above, the Commission concludes that the United States did not provide Mr. Bucklew with effective access to judicial protection with regard to his right to be free from torture and cruel and inhuman punishment in the context of the application of lethal injection as the method of execution. Therefore, the Commission establishes that the State is responsible for the violation of Articles XVIII and XXVI of the American Declaration to the detriment of Mr. Bucklew.

C. Right of protection against arbitrary arrest, to humane treatment, and not to undergo cruel, infamous, or unusual punishment, with respect to the deprivation of liberty on death row

84. As indicated above, Article XXVI of the American Declaration establishes that "Every person accused of an offense has the right (...) not to receive cruel, infamous or unusual punishment."

85. In both international human rights law and comparative law, the issue of long term deprivation of liberty on death row, known as the *death row phenomenon*, has been developed for decades, in light of the prohibition of cruel, inhuman, or degrading punishment in constitutions and in multiple international treaties, including the American Declaration of the Rights and Duties of Man (Articles XXV and XXVI). Bearing in mind the equivalent nature of the protections envisaged in this regard in the American Declaration and other international instruments, the Commission considers it relevant to cite a number of developments that have taken place

in the inter-American and other protection systems, including the regional and United Nations systems.

86. To start with, the Commission takes note of the concept of the *death row phenomenon* that the United Nations Special Rapporteur on torture and other cruel, inhuman or degrading treatment or punishment has taken into consideration:

> (...) it consists of a combination of circumstances that produce severe mental trauma and physical deterioration in prisoners under sentence of death. [54] Those circumstances include the lengthy and anxiety-ridden wait for uncertain outcomes, isolation, drastically reduced human contact and even the physical conditions in which some inmates are held. Death row conditions are often worse than those for the rest of the prison population, and prisoners on death row are denied many basic human necessities.[55]

87. In the case of *Soering vs. The United Kingdom*, the European Court of Human Rights, in its interpretation of the norm banning cruel, inhuman, and unusual punishment and in reference to the death penalty, pointed out that:

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[54] United Nations. Report of the Special Rapporteur on torture and other cruel, inhuman or degrading treatment of punishment. 9 August 2012. A/67/279, para 42. Citing: Patrick Hudson, "Does the death row phenomenon violate a prisoner's rights under international law?" *European Journal of International Law*, vol. 11, No. 4 (2000), pp. 834-837.

[55] United Nations. Report of the Special Rapporteur on torture and other cruel, inhuman or degrading treatment of punishment. 9 August 2012. A/67/279. para 42.

> The manner in which it is imposed or executed, the personal circumstances of the condemned person and a disproportionality to the gravity of the crime committed, as well as the conditions of detention awaiting execution, are examples of factors capable of bringing the treatment or punishment received by the condemned person within the proscription under Article 3. [56]

88. The European Court was referring to an average of six to eight years on death row from imposition of the penalty to execution and it noted that proceedings and appeals subsequent to the imposition of the death penalty themselves have a bearing on the time spent on death row. The European Court nonetheless stated that:

> (...) just as some lapse of time between sentence and execution is inevitable if appeal safeguards are to be provided to the condemned person, so it is equally part of human nature that the person will cling to life by exploiting those safeguards to the full. However well-intentioned and even potentially beneficial is the provision of the complex of post-sentence procedures in Virginia, the consequence is that the condemned prisoner has to endure for many years the conditions on death row and the anguish and mounting tension of living in the ever-present shadow of death. [57]

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[56] ECtHR. Case of Soering v. The United Kingdom. Report No. 14038/88. Judgment, July 7, 1989. para. 104.

[57] ECtHR. Case of Soering v. The United Kingdom. Report No. 14038/88. Judgment, July 7, 1989. para. 106.

> (...)
> For any prisoner condemned to death, some element of delay between imposition and execution of the sentence and the experience of severe stress in conditions necessary for strict incarceration are inevitable.
>
> (...)
> However, in the Court's view, having regard to the very long period of time spent on death row in such extreme conditions, with the ever present and mounting anguish of awaiting execution of the death penalty, and to the personal circumstances of the applicant, especially his age and mental state at the time of the offence, the applicant's extradition to the United States would expose him to a real risk of treatment going beyond the threshold set by Article 3.[58]

89. Furthermore, in a comparative law context, the Commission notes that in 1993 the Privy Council of the British House of Lords ruled on the issue of the *death row phenomenon* in the *Pratt and Morgan v. Jamaica* case, that:

> In their Lordships' view a State that wishes to retain capital punishment must accept the responsibility of ensuring that execution follows as swiftly as practicable after sentence, allowing a reasonable time for appeal and consideration of reprieve. It is part of the human condition that a condemned man will take every opportunity to save his life through use of the appellate procedure. If the appellate

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[58] ECtHR. Case of Soering v. The United Kingdom. Report No. 14038/88. Judgment, July 7, 1989. para. 111.

procedure enables the prisoner to prolong the appellate hearings over a period of years, the fault is to be attributed to the appellate system that permits such delay and not to the prisoner who takes advantage of it. Appellate procedures that echo down the years are not compatible with capital punishment. The death row phenomenon must not become established as a part of our jurisprudence.

(...)

The total period of delay is shocking and now amounts to almost fourteen years. It is double the time that the European Court of Human Rights considered would be an infringement of Article 3 of the European Convention and their Lordships can have no doubt that an execution would now be an infringement of section 17(1) of the Jamaican Constitution.

To execute these men now after holding them in custody in an agony of suspense for so many years would be inhuman punishment within the meaning of section 17(1).

(...)

These considerations lead their Lordships to the conclusion that in any case in which execution is to take place more than five years after sentence there will be strong grounds for believing that the delay is such as to constitute "inhuman or degrading punishment or other treatment".[59]

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[59] Pratt and Morgan v. The Attorney General for Jamaica and another (Jamaica) [1993] UKPC 1 (2nd November, 1993), paragraphs 73, 74, 75, and 84.

90. In the same vein, the Supreme Court of Uganda considered in 2009 that "to execute a person after a delay of three years in conditions that were not acceptable by Ugandan standards would amount to cruel, inhuman punishment."[60] For its part, the Supreme Court of Zimbabwe has pointed out since 1993 that "having regard to judicial and academic consensus concerning the death row phenomenon, the prolonged delays and the harsh conditions of incarceration, a sufficient degree of seriousness had been attained to entitle the applicant to invoke the protection concerning the prohibition of torture and inhuman or degrading punishment." That Supreme Court maintained that "52 and 72 months, respectively, on death row constituted a violation of the prohibition of torture and would render an actual execution unconstitutional."[61]

91. As established under proven facts, Russell Bucklew has been deprived of his liberty on death row from 1997 to the date of the present report, i.e., for more than 20 years. The Commission notes that the time spent by Russell Bucklew on death row greatly exceeds the length of time that other international and domestic courts have characterized as cruel, inhuman, and degrading treatment. The very fact of spending 20 years on death row is, by any account, excessive and inhuman. Consequently, the United States is responsible for violating, to the detriment of Russell Bucklew, the right to humane

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60 Supreme Court of Uganda in *Attorney General v. Susan Kigula* and 417 others (Constitutional Appeal No. 3 of 2006), 2009.

61 Judgment of the Supreme Court of Zimbabwe of 24 June 1993 in *Catholic Commissioner for Justice and Peace in Zimbabwe v. Attorney General* (4) SA 239 (ZS).

treatment, and not to receive cruel, infamous, or unusual punishment established in Article XXVI of the American Declaration.

D. The right to life and not to receive cruel, infamous, or unusual punishment with respect to the eventual execution of Russell Bucklew

92. Article I of the American Declaration sets forth the right to life, liberty and personal security, as follows: "Every human being has the right to life, liberty and the security of his person." The Commission already cited the relevant part of Article XXVI which also applies to the analysis in this section.

93. The Commission reiterates that it is not competent to review judgments handed down by domestic courts acting within their spheres of competence and with due judicial guarantees. In principle that is because the IACHR does not have the authority to superimpose its own interpretations on the assessment of facts made by national courts. The fourth instance formula, however, does not preclude the Commission from considering a case in which the petitioner's allegations entail a possible violation of any of the rights set forth in the Declaration.[62] This authority is heightened in cases involving imposition of the death penalty, given its irreversibility.

94. As indicated above, the Inter-American Commission considers that it is incumbent upon the national courts, not the Commission, to interpret and

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62 See, *mutatis mutandis*, IACHR, Report No. 57/96, Case 11.139, William Andrews, United States, December 6, 1996.

apply national law. Nevertheless, the IACHR must ensure that any deprivation of life resulting from imposition of the death penalty complies with the requirements of the American Declaration.[63]

95. Throughout this report, the Commission established that Mr. Bucklew did not have access to an effective judicial remedy to challenge the method of execution and its specific consequences for his right to humane treatment and not to receive cruel, infamous or unusual punishment. The Commission also established that this violation was particularly serious, taking into account the actual risk of excruciating suffering in the event of the application of the lethal injection protocol. Moreover, the Commission already established that the more than 20 years that Mr. Bucklew has been in death row constitute cruel and inhuman treatment.

96. Under these circumstances, the IACHR has maintained that executing a person after proceedings that were conducted in violation of his rights would be extremely grave and constitute a deliberate violation of the right to life established in Article I of the American Declaration.[64] Also, taking into account the specific circumstances of this case, the Commission considers sufficiently established that the execution of Mr. Bucklew, taking into account his medical condition, presents a substantial risk of imposing cruel and inhuman suffering.

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63 IACHR, Report No. 53/13, Case 12.864, Merits (Publication), Iván Teleguz, United States, July 15, 2013, para. 129.

64 IACHR, Report No. 11/15, Case 12.833, Merits (Publication), Félix Rocha Díaz, United States, March 23, 2015, para. 106.

97. In light of the foregoing and taking into account the determinations made throughout this report, the IACHR concludes that the execution of Russell Bucklew would constitute a serious violation of his rights to life and not to receive cruel, infamous, or unusual punishment established in Articles I and XXVI of the American Declaration.

V. CONCLUSIONS AND RECOMMENDATIONS

98. Based on the legal and factual considerations set forth in this report, the Inter-American Commission concludes that the United States is responsible for violating Articles I (right to life, liberty, personal security and integrity), XVIII (right to a fair trial) and XXVI (right to due process of law) of the American Declaration to the detriment of Russell Bucklew. If Russell Bucklew were to be executed, the State would also be responsible for a serious and irreparable violation of the fundamental rights to life and not to receive cruel, infamous, or unusual punishment protected by Articles I and XXVI of the American Declaration.

99. Russell Bucklew is the beneficiary of precautionary measures adopted by the Inter-American Commission under Article 25 of its Rules of Procedure. The Inter-American Commission reaffirms to the State that carrying out a death sentence in the circumstances of the present case would not only cause irreparable harm to the person but would also deny his right to petition the Inter-American human rights system and to obtain an effective result, and that such a measure would be contrary to the fundamental human rights obligations of the United States as a member of the OAS pursuant to the

Charter of the Organization and the instruments deriving from it.[65]

Accordingly,

THE INTER-AMERICAN COMMISSION ON HUMAN RIGHTS RECOMMENDS THAT THE UNITED STATES:

1. Grant Russell Bucklew effective relief. Taking into account the conclusions of the IACHR on the lack of an effective remedy to challenge the method of execution, the time Russell Bucklew has already been held on death row, his rare medical condition and the significant risk, due to that condition, that his execution would cause excessive suffering incompatible with the American Declaration, the Commission recommends that his sentence be commuted, that he be transferred out of death row, and that the State ensure that his conditions of detention are compatible with his human dignity.

2. Review its laws, procedures, and practices to ensure that the persons sentenced to the death penalty have access to effective judicial remedies to

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[65] See: IACHR, Report No. 81/11, Case 12.776, Merits, Jeffrey Timothy Landrigan, United States, July 21, 2011, para. 66; Report No. 52/01, Case No. 12.243, Juan Raúl Garza, United States, Annual Report of the IACHR 2000, para. 117; IACHR, *Fifth Report on the Situation of Human Rights in Guatemala*, Doc.OEA/Ser.L/V/II.11doc.21rev. (April 6, 2001) paras. 71 and 72. See also: International Court of Justice, *Case re. the Vienna Convention on Consular Relations (Germany v. United States of America)*, Request for the Indication of Provisional Measures, Order of March 3, 1999, General List, No. 104, paras. 22-28; United Nations Human Rights Committee, *Dante Piandiong et al. v. Philippines*, Communication No. 869/1999, UN Doc. CCPR/C/70/D/869.

challenge the possible impact of the method of execution on their fundamental rights in accordance with the standards set forth in this merits report.

3. Given the violations of the American Declaration the IACHR has established in the present case and in others involving application of the death penalty, the Inter-American Commission also recommends to the United States that it adopt a moratorium on the execution of persons sentenced to death.[66]

Approved by the Inter-American Commission on Human Rights on the 18th day of the month of March, 2018. (Signed): Esmeralda Arosemena Bernal de Troitiño, First Vice President; Luis Ernesto Vargas Silva, Second Vice President; Francisco José Eguiguren, Joel Hernández, Antonia Urrejola and Flávia Piovesan, Commissioners.

The undersigned, Paulo Abrão, Executive Secretary of the Inter-American Commission on Human Rights, in keeping with Article 49 of the Commission's Rules of Procedure, certifies that this is an accurate copy of the original deposited in the archives of the IACHR Secretariat.

Paulo Abrão
Executive Secretary

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[66] See in this regard, IACHR, The death penalty in the Inter-American Human Rights System: From restrictions to abolition, OEA/Ser.L/V/II.Doc 68, December 31, 2011.

No. 17-8151

IN THE

Supreme Court of the United States

RUSSELL BUCKLEW,

Petitioner,

v.

ANNE PRECYTHE, *et al.*,

Respondents.

On Writ of Certiorari to the United States Court of Appeals for the Eighth Circuit

PUBLIC JOINT APPENDIX—VOLUME I OF II

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Transcript of Teleconference, *Bucklew v. Precythe*, No. 14-08000 (W.D. Mo. July 24, 2017) 998

U.S. DISTRICT COURT
WESTERN DISTRICT OF MISSOURI (KANSAS CITY)

Civil Docket for Case #: 4:14-cv-08000-BP

BUCKLEW

v.

PRECYTHE, *et al.*

RELEVANT DOCKET ENTRIES

DATE	NO.	PROCEEDINGS
05/09/2014	1	**COMPLAINT against All Defendants filed by Cheryl Ann Pilate on behalf of Russell Bucklew. Filing fee $400, receipt number Pending. Service due by 9/11/2014. (Attachments: # 1 Exhibit 1, # 2 Exhibit 2, # 3 Exhibit 3, # 4 Civil Cover Sheet)(Diefenbach, Tracy) (Attachment 2 replaced on 5/9/2014) (Diefenbach, Tracy). (Entered: 05/09/2014)**
		* * *
03/18/2015	29	**ORDER. This matter comes before the Court on the Eighth Circuit's opinion regarding this Court's denial of Bucklew's Motions for Stay of Execution and an Injunction and sua**

DATE	NO.	PROCEEDINGS
		sponte dismissal of his claims, (Docs. 27 and 28). Bucklew is ORDERED to file an amended complaint that meets the pleading requirements for his Eighth Amendment claim within 14 days of the date of this Order. Signed on 3/18/2015 by District Judge Beth Phillips. (Cordell, Annette) (Entered: 03/18/2015)
04/01/2015	30	AMENDED COMPLAINT against All Defendants filed by Cheryl Ann Pilate on behalf of All Plaintiffs. (Attachments: # 1 Exhibit 1, # 2 Exhibit 2, # 3 Exhibit 3, # 4 Exhibit 4)(Pilate, Cheryl) (Entered: 04/01/2015)
		* * *
05/01/2015	37	AMENDED COMPLAINT *(Second Amended)* against All Defendants filed by Cheryl Ann Pilate on behalf of Russell Bucklew. (Attachments: # 1 Exhibit 1 - Declaration of Dr. Zivot, # 2 Exhibit 2 - Declaration of Dr. Jamroz, # 3 Exhibit 3 - Declaration of Dr. Sasich, # 4 Exhibit 4 - Supplemental Affidavit of Dr. Zivot)(Pilate, Cheryl) (Entered: 05/01/2015)
		* * *
06/18/2015	46	AMENDED COMPLAINT *(Third Amended Complaint)* against All Defendants filed by Cheryl Ann

DATE	NO.	PROCEEDINGS
		Pilate on behalf of Russell Bucklew. (Attachments: # 1 Exhibit A - Declaration of Dr. Zivot, # 2 Exhibit B - Declaration of Dr. Jamroz, # 3 Exhibit C - Declaration of Dr. Sasich, # 4 Exhibit D - Affidavit of Dr. Zivot) (Pilate, Cheryl) Modified on 6/23/2015 at the request of counsel to correct document quality. Attachment 1&2 replaced. NEF regenerated. (Travis, Kendra). (Entered: 06/18/2015)
		* * *
10/13/2015	53	AMENDED COMPLAINT, *Fourth Amended Complaint*, against All Defendants filed by Cheryl Ann Pilate on behalf of Russell Bucklew. (Attachments: # 1 Exhibit 1 - Dr. Zivot Declaration, # 2 Exhibit 2 - Dr. Jamroz Declaration, # 3 Exhibit 3 - Dr. Sasich Declaration, # 4 Exhibit 4 - Dr. Zivot Supplemental Affidavit, # 5 Exhibit 5 - Dr. Zivot Declaration, # 6 Exhibit 6 - Photographs)(Pilate, Cheryl) (Entered: 10/13/2015)
		* * *
11/02/2015	55	MOTION TO DISMISS FOR FAILURE TO STATE A CLAIM filed by Michael Joseph Spillane on behalf of All Defendants. Suggestions in opposition/response due by 11/19/2015 unless otherwise directed by the court. (Attachments: # 1

DATE	NO.	PROCEEDINGS
		Exhibit 1, # 2 Exhibit 2, # 3 Exhibit 3)(Spillane, Michael) (Entered: 11/02/2015)
		* * *
12/04/2015	61	SUGGESTIONS in opposition re 55 MOTION TO DISMISS FOR FAILURE TO STATE A CLAIM filed by Cheryl Ann Pilate on behalf of Plaintiff Russell Bucklew. Reply suggestions due by 12/21/2015 unless otherwise directed by the court (Attachments: # 1 Exhibit 1 - Information regarding gases, # 2 Exhibit 2 - Request for information under Sunshine Act and response, # 3 Exhibit 3 - Declaration of Dr. Zivot dated 12-4-15, # 4 Exhibit 4 - Request for funding filed in Bucklew v. Roper, # 5 Exhibit 5 - Suggestions in Opposition filed by Missouri Attorney General's office to Petitioner's funding request, # 6 Exhibit 6 - Order in Cornell v. Florida, # 7 Exhibit 7 - Transcript excerpt of oral argument in Bucklew v Lombardi)(Related document(s) 55) (Pilate, Cheryl) (Entered: 12/04/2015)
12/17/2015	62	REPLY SUGGESTIONS to motion re 55 MOTION TO DISMISS FOR FAILURE TO STATE A CLAIM *Reply Suggestions in Support of Motion to Dismiss Fourth Amended*

DATE	NO.	PROCEEDINGS
		Complaint filed by Michael Joseph Spillane on behalf of Defendants David Dormire, George A Lombardi, Terry Russell. (Related document(s) 55) (Spillane, Michael) (Entered: 12/17/2015)
01/29/2016	63	ORDER granting in part and denying in part 55: Defendants' Motion to Dismiss is GRANTED in part and DENIED in part. Counts II and III are dismissed. Defendants shall file an Answer to Count I within 28 days of this Order. Signed on 1/29/16 by District Judge Beth Phillips. (Cordell, Annette) (Entered: 01/29/2016)
		* * *
07/18/2016	100	TRIAL BRIEF, *Brief on Scope of Requested Discovery* by Russell Bucklew. (Pilate, Cheryl) (Entered: 07/18/2016)
		* * *
07/28/2016	102	TRIAL BRIEF *Defendant's Brief on the Scope of Discovery* by David Dormire, George A Lombardi, Terry Russell. (Spillane, Michael) (Entered: 07/28/2016)
		* * *
08/11/2016	105	ORDER REGARDING SCOPE OF DISCOVERY. This Order provides guidance regarding the scope of

DATE	NO.	PROCEEDINGS
		discovery in this case. Signed on 8/11/16 by District Judge Beth Phillips. (Cordell, Annette) (Entered: 08/11/2016)
		* * *
03/23/2017	169	NOTICE (SEALED) by Russell Bucklew *Motion to Compel and Exhibits per Order 166* (Attachments: # 1 Exhibit re 166, # 2 Exhibit re 166, # 3 Exhibit re 166)(Pilate, Cheryl) (Entered: 03/23/2017)
03/23/2017	170	NOTICE of filing *Exhibits in Support of Motion to Compel 169* by Russell Bucklew (Attachments: # 1 Exhibit 1-Defendants' Response to 1st RFPs, # 2 Exhibit 2-Def. Lombardi's Response to 1st interrogatories, # 3 Exhibit 3-Production Log, # 4 Exhibit 4-Def. Lombardi's Supplemental Response, # 5 Exhibit 5-Email re Lombardi's Response, # 6 Exhibit 6-Def. Lombardi's Response to 1st RFA, # 7 Exhibit 9-Def. Lombardi's Deposition Transcript, # 8 Exhibit 10-Open Portion of Protocol, # 9 Exhibit 11-Email re 2nd Supp RFP, # 10 Exhibit 12-Email re Lethal Gas, # 11 Exhibit 14-Good Faith Certificates)(Pilate, Cheryl) (Entered: 03/23/2017)
		* * *

DATE	NO.	PROCEEDINGS
03/29/2017	172	MOTION to seal document *Motion for Leave to File Suggestions in Opposition under seal* filed by Michael Joseph Spillane on behalf of All Defendants. Suggestions in opposition/ response due by 4/12/2017 unless otherwise directed by the court. (Spillane, Michael) (Entered: 03/29/2017)
03/29/2017	173	SUGGESTIONS in opposition (SEALED) re 172 MOTION to seal document *Motion for Leave to File Suggestions in Opposition under seal Suggestions in Opposition to Motion to Compel Discover* filed by Michael Joseph Spillane on behalf of Defendants David Dormire, George A Lombardi, Terry Russell, Troy Steele. Reply suggestions due by 4/12/2017 unless otherwise directed by the court. (Attachments: # 1 Exhibit A, # 2 Exhibit B, # 3 Exhibit C, # 4 Exhibit D, # 5 Exhibit E, # 6 Exhibit F, # 7 Exhibit G, # 8 Exhibit H, # 9 Exhibit I, # 10 Exhibit J, # 11 Exhibit K, # 12 Exhibit L, # 13 Exhibit M, # 14 Exhibit N, # 15 Exhibit O, # 16 Exhibit P)(Related document(s) 172) (Spillane, Michael) (Entered: 03/29/2017)
03/29/2017	174	SUGGESTIONS in opposition re 172 MOTION to seal document *Motion for Leave to File Suggestions in*

DATE	NO.	PROCEEDINGS
		Opposition under seal Redacted suggestions in opposition for public docket sheet filed by Michael Joseph Spillane on behalf of Defendants David Dormire, George A Lombardi, Terry Russell, Troy Steele. Reply suggestions due by 4/12/2017 unless otherwise directed by the court. (Related document(s) 172) (Spillane, Michael) (Entered: 03/30/2017)
		* * *
04/05/2017	178	MOTION to seal document filed by Cheryl Ann Pilate on behalf of Russell Bucklew. Suggestions in opposition/response due by 4/19/2017 unless otherwise directed by the court. (Attachments: # 1 Exhibit - Proposed Sealed Exhibit)(Pilate, Cheryl) (Entered: 04/05/2017)
		* * *
04/06/2017	180	ORDER denying 178 motion to file document under seal. The Court will review Plaintiff's Motion to Compel and will contact the parties if it believes that a review of M3's deposition is necessary to resolve issues raised in that motion. In the meantime, M3's deposition should not be filed in this case. Signed on 4/6/2017 by District Judge Beth Phillips. This is a TEXT ONLY

DATE	NO.	PROCEEDINGS
		ENTRY. No document is attached. (Wolfe, Steve) (Entered: 04/06/2017)
04/10/2017	181	MOTION for summary judgment filed by Michael Joseph Spillane on behalf of All Defendants. Suggestions in opposition/response due by 5/1/2017 unless otherwise directed by the court. (Spillane, Michael) (Entered: 04/10/2017)
04/10/2017	182	SUGGESTIONS in support re 181 MOTION for summary judgment filed by Michael Joseph Spillane on behalf of Defendants David Dormire, George A Lombardi, Terry Russell, Troy Steele. (Attachments: # 1 Exhibit 1-Dr. Zivot Depo w Exhibits, part 1, # 2 Exhibit 1-Dr. Zivot Depo w Exhibits, part 2, # 3 Exhibit 1-Dr. Zivot Depo w Exhibits, part 3, # 4 Exhibit 2-Article, # 5 Exhibit 3-Dr. Antognini Depo, # 6 Exhibit 4-Redacted Briesacher Depo, # 7 Exhibit 5-Redacted Dormire Depo, # 8 Exhibit 6-Redacted Lombardi Depo, part 1, # 9 Exhibit 6-Redacted Lombardi Depo, part 2, # 10 Exhibit 6-Redacted Lombardi Depo, part 3, # 11 Exhibit 7-Redacted Precythe Depo, # 12 Exhibit 8-Redacted Steele Depo, # 13 Exhibit 9-Dr. Stephens Depo, # 14 Exhibit 10-Dr. McKinney Depo, # 15 Exhibit 11-Bucklew 2008 and 2009 Pleadings and Orders)

DATE	NO.	PROCEEDINGS
		(Related document(s) 181) (Spillane, Michael) (Entered: 04/10/2017)
04/11/2017	183	ORDER GRANTING IN PART AND DENYING IN PART PLAINTIFF'S MOTION TO COMPEL (Doc. 169 . See Order for details. Signed on 4/11/17 by District Judge Beth Phillips. (Cordell, Annette) (Entered: 04/11/2017)
		* * *
05/15/2017	190	NOTICE (SEALED) by Russell Bucklew *filing sealed version of Reply Brief in Support of Motion to Compel Discovery, unredacted version of Doc. 177* (Pilate, Cheryl) (Entered: 05/15/2017)
		* * *
05/15/2017	192	MOTION to seal document - *Motion to Seal Portion of Plaintiff's Suggestions in Opposition to Motion for Summary Judgment and to Seal Three Exhibits* filed by Cheryl Ann Pilate on behalf of Russell Bucklew. Suggestions in opposition/response due by 5/30/2017 unless otherwise directed by the court. (Attachments: # 1 Exhibit Plaintiff's Suggestions in Opposition to Defendant's Motion for Summary Judgment - Partially Redacted, # 2 Index of Exhibits, # 3 Exhibit 1 - Procedure for Execution - Redacted, # 4 Exhibit 2 - Dormire

DATE	NO.	PROCEEDINGS
		Affidavit, # 5 Exhibit 3 - Defendants' Response to Plaintiff's Request for Admission, # 6 Exhibit 4 - Bucklew Pre-execution Medical Summary, # 7 Exhibit 5 - Excerpt of Prison File, # 8 Exhibit 6 - Excerpt of Medical Records, # 9 Exhibit 7 - Excerpt of Dormire deposition - Redacted, # 10 Exhibit 8 - Excerpt of Steele deposition - Redacted, # 11 Exhibit 9 - Witness statements, # 12 Exhibit 10 - Blank Pre-execution Summary of Medical History, # 13 Exhibit 11 - Oklahoma House Bill 1879, # 14 Exhibit 12 - Oklahoma MCGJ Interim Report, # 15 Exhibit 13 - Report of Oklahoma Death Penalty Review Commission, # 16 Exhibit 14 - Lombardi supplemental interrogatory response, # 17 Exhibit 15 - Louisiana Report by Dept of Public Safety)(Pilate, Cheryl) (Entered: 05/15/2017)
05/15/2017	193	MOTION for leave to file *Supplemental Suggestions in Opposition* filed by Cheryl Ann Pilate on behalf of Russell Bucklew. Suggestions in opposition/response due by 5/30/2017 unless otherwise directed by the court. (Attachments: # 1 Exhibit 1 - Proposed Supplement to Plaintiff's Suggestions in Opposition to Defendant's Motion for

DATE	NO.	PROCEEDINGS
		Summary Judgment)(Pilate, Cheryl) (Entered: 05/15/2017)
		* * *
05/16/2017	197	NOTICE (SEALED) by Russell Bucklew re 195 Order on Motion to Seal Document, *Suggestions in Opposition to Defendants' Motion for Summary Judgment* (Attachments: # 1 Exhibit Ex 1 Execution Procedure (UNREDACTED), # 2 Exhibit Ex 7 Excerpt of Dormire Deposition (UNREDACTED), # 3 Exhibit Ex 8 Excerpt of Steele Deposition (UNREDACTED))(Pilate, Cheryl) (Entered: 05/16/2017)
05/16/2017	198	ORDER denying 193 : Plaintiff's Motion for Leave to File Supplemental Suggestions in Opposition is DENIED. Signed on 5/16/17 by District Judge Beth Phillips. (Cordell, Annette) (Entered: 05/16/2017)
05/16/2017	199	NOTICE of filing *Redacted Suggestions in Opposition to Defendants' Motion for Summary Judgment (unredacted version filed as Doc 197)* by Russell Bucklew (Attachments: # 1 Exhibit 2 - Dormire affidavit, # 2 Exhibit 3 - Defendants' Response to Plaintiff's Request for Admission, # 3 Exhibit 4 - Pre-execution Medical Summary, #

DATE	NO.	PROCEEDINGS
		4 Exhibit 5 - Excerpt of Prison File, # 5 Exhibit 6 - Excerpt of Medical Records, # 6 Exhibit 9 - Witness statements, # 7 Exhibit 10 - Blank Pre-execution summary, # 8 Exhibit 11 - Oklahoma House Bill 1879, # 9 Exhibit 12 - Oklahoma MCGJ Interim Report, # 10 Exhibit 13 - Report of Oklahoma Death Penalty Review Commission, # 11 Exhibit 14 - Lombardi supplemental answer to interrogatory, # 12 Exhibit 15 - Louisiana Report by Dept of Public Safety)(Pilate, Cheryl) (Entered: 05/16/2017)
05/30/2017	200	REPLY SUGGESTIONS to motion re 181 MOTION for summary judgment *Reply in Support of Defendants' Motion for Summary Judgment* filed by Michael Joseph Spillane on behalf of Defendants David Dormire, George A Lombardi, Terry Russell, Troy Steele. (Related document(s) 181) (Spillane, Michael) (Entered: 05/30/2017)
		* * *
06/15/2017	202	ORDER Defendants Motion for Summary Judgment on Count I is GRANTED. 181 Signed on 6/15/2017 by District Judge Beth Phillips. (McIlvain, Kelly) (Entered: 06/15/2017)
		* * *

DATE	NO.	PROCEEDINGS
07/14/2017	210	MOTION for Order (SEALED) *Plaintiff's Motion to Alter or Amend Judgment - Unredacted* filed by Cheryl Ann Pilate on behalf of Russell Bucklew. Suggestions in opposition/response due by 7/28/2017 unless otherwise directed by the court. (Pilate, Cheryl) (Entered: 07/14/2017)
07/14/2017	211	SUGGESTIONS in opposition re 210 MOTION for Order (SEALED) *Plaintiff's Motion to Alter or Amend Judgment - Unredacted* filed by Michael Joseph Spillane on behalf of Defendants David Dormire, George A Lombardi, Terry Russell, Troy Steele. Reply suggestions due by 7/28/2017 unless otherwise directed by the court. (Related document(s) 210) (Spillane, Michael) (Entered: 07/14/2017)
		* * *
07/17/2017	214	ORDER DENYING PLAINTIFF'S REQUEST FOR ACCESS TO DEPOSITIONS TAKEN IN OTHER CASES. Signed on 7/17/17 by District Judge Beth Phillips. (Cordell, Annette) (Entered: 07/17/2017)
		* * *
07/24/2017	216	REDACTED ELECTRONIC TRANSCRIPT of Teleconference held 3/15/2017 before Judge Beth Phillips.

DATE	NO.	PROCEEDINGS
		Court Reporter: Katie Wirt, 816-512-5608, katie_wirt@mow.uscourts.gov. Number of pages: 31. Related document 164 Electronic Transcript. **Release of Transcript Restriction set for 6/19/2017.**(Wirt, Katie) (Entered: 07/24/2017)
07/28/2017	217	NOTICE of filing *of discovery dispute summaries of Plaintiff and Defendants relating to Order issued as Doc. 214* by Russell Bucklew (Attachments: # 1 Exhibit 1 - Plaintiff's discovery dispute summary, # 2 Exhibit 2 - Defendants' discovery dispute summary)(Pilate, Cheryl) (Entered: 07/28/2017)
		* * *
07/31/2017	220	REPLY SUGGESTIONS to motion (Sealed) re 210 MOTION for Order (SEALED) *Plaintiff's Motion to Alter or Amend Judgment - Unredacted* filed by Cheryl Ann Pilate on behalf of Plaintiff Russell Bucklew. (Related document(s) 210) (Pilate, Cheryl) (Entered: 07/31/2017)
08/21/2017	221	ORDER denying 210 : Plaintiff's Motion to Alter or Amend Judgment is DENIED. Signed on 8/21/17 by District Judge Beth Phillips. (Cordell, Annette) (Entered: 08/21/2017)
		* * *

DATE	NO.	PROCEEDINGS
09/19/2017	224	NOTICE OF APPEAL by Russell Bucklew. (Pilate, Cheryl) (Entered: 09/19/2017)
		* * *
03/06/2018	229	USCA Judgment and/or Opinion as to 224 Notice of Appeal filed by Russell Bucklew **This is a preliminary judgment and/or opinion of U.S. Court of Appeals; jurisdiction is not recovered until the Mandate is issued by the U.S Court of Appeals. It is hereby ordered and adjudged that the judgment of the district court in this cause is affirmed in accordance with the opinion of this Court.** (Attachments: # 1 Opinion) (Crespo, Wil) (Entered: 03/06/2018)
03/15/2018	230	ORDER of US COURT OF APPEALS: Bucklews motion for stay of execution has been considered by the court and is denied. (Crespo, Wil) (Entered: 03/15/2018)
03/19/2018		WRIT OF CERTIORARI Petition filed on 3/15/2018. 8th Circuit Court of Appeals Case Number: 17-3052. This is a text entry only. There is no document attached. (Crespo, Wil) (Entered: 03/19/2018)

DATE	NO.	PROCEEDINGS
03/21/2018	231	ORDER of Supreme Court: The application for stay of execution of sentence of death is granted. (Crespo, Wil) (Entered: 03/21/2018)

* * *

UNITED STATES COURT OF APPEALS
FOR THE EIGHTH CIRCUIT

Court of Appeals Docket #: 17-3052

RUSSELL BUCKLEW,

v.

ANNE PRECYTHE, ET AL.

RELEVANT DOCKET ENTRIES

DATE	PROCEEDINGS
	* * *
09/21/2017	Originating court document filed consisting of notice of appeal filed 9/19/17, Order & Judgment filed 6/15/17, Order denying motion to alter or amend Judgment, & docket entries, [4581535] [17-3052] (JMH) [Entered: 09/21/2017 02:37 PM]
	* * *
10/05/2017	STATEMENT of issues filed by Appellant Mr. Russell Bucklew - w/service 10/05/2017. [4586941] [17-3052] (RNH) [Entered: 10/05/2017 04:24 PM]
	* * *
12/01/2017	**BRIEF FILED** - APPELLANT BRIEF filed by Mr. Russell Bucklew. w/service 11/30/2017 , Length: 12,481 words **10 COPIES OF PAPER BRIEFS**

DATE	PROCEEDINGS
	WITHOUT THE APPELLATE PDF HEADER FROM Russell Bucklew due 12/06/2017 WITH certificate of service for paper briefs . Brief of Appellees David Dormire, Anne L. Precythe and Troy Steele due on 01/02/2018 [4606035] [17-3052] (MER) [Entered: 12/01/2017 11:22 AM]
12/01/2017	**ADDENDUM** of APPELLANT FILED by Appellant Mr. Russell Bucklew , w/service 11/30/2017 [4606037] [17-3052] (MER) [Entered: 12/01/2017 11:23 AM]
	* * *
12/01/2017	RECORD FILED - APLNT/PET APPENDIX, 5 volumes, Location STL, 1 box, Comments: 3 sets - *** Volume V SEALED *** [4606055] [17-3052] (MER) [Entered: 12/01/2017 11:38 AM]
	* * *
01/03/2018	**BRIEF FILED** - APPELLEE BRIEF filed by David Dormire, Anne L. Precythe and Troy Steele, w/service 01/02/2018 , Length: 12,896 words **10 COPIES OF PAPER BRIEFS WITHOUT THE APPELLATE PDF HEADER FROM David Dormire, Anne L. Precythe and Troy Steele due 01/08/2018 WITH certificate of service for paper briefs** . Reply brief of Russell Bucklew due on 01/17/2018. [4616364] [17-3052] (MER) [Entered: 01/03/2018 04:19 PM]

DATE	PROCEEDINGS
	* * *
01/18/2018	**BRIEF FILED** - APPELLANT REPLY BRIEF filed by Mr. Russell Bucklew. w/service 01/18/2018 , Length: 6,465 words **10 COPIES OF PAPER BRIEFS WITHOUT THE APPELLATE PDF HEADER FROM Russell Bucklew due 01/23/2018 WITH certificate of service for paper briefs** [4620909] [17-3052] (AMT) [Entered: 01/18/2018 09:35 AM]
	* * *
01/29/2018	RECORD FILED - APLEE/RES APPENDIX, 1 volume, Location STL, Comments: 3 copies [4624245] [17-3052] (MER) [Entered: 01/29/2018 01:39 PM]
02/02/2018	**ARGUED & SUBMITTED in St. Paul** to Judges Roger L. Wollman, James B. Loken, Steven M. Colloton on 02/02/2018. Mr. Robert N. Hochman for Appellant Mr. Russell Bucklew and Mr. Joshua Divine for Appellees David Dormire, Troy Steele and Anne L. Precythe. Rebuttal by Mr. Robert N. Hochman for Mr. Russell Bucklew RECORDED. Click Here To Listen to Oral Argument [4626247] [17-3052] (CYZ) [Entered: 02/02/2018 11:32 AM]
03/06/2018	OPINION FILED - THE COURT: Roger L. Wollman, James B. Loken and Steven M. Colloton AUTHORING JUDGE:James B. Loken (PUBLISHED), DISSENT BY:

DATE	PROCEEDINGS
	Steven M. Colloton [4636271] [17-3052] (MER) [Entered: 03/06/2018 11:10 AM]
03/06/2018	**JUDGMENT FILED** - The judgment of the Originating Court is AFFIRMED in accordance with the opinion. ROGER L. WOLLMAN, JAMES B. LOKEN and STEVEN M. COLLOTON Hrg Feb 2018 [4636289] [17-3052] (MER) [Entered: 03/06/2018 11:25 AM]
03/09/2018	PETITION for enbanc rehearing and also for rehearing by panel filed by Appellant Mr. Russell Bucklew w/service 03/09/2018 [4638004] [17-3052] (RNH) [Entered: 03/09/2018 02:20 PM]
	* * *
03/09/2018	**ADDENDUM in Support of PETITION FOR REHEARING EN BANC** FILED by Appellant Mr. Russell Bucklew , w/service 03/09/2018 [4638064] [17-3052] (SRD) [Entered: 03/09/2018 03:27 PM]
03/09/2018	MOTION for stay of execution, filed by Attorney Mr. Robert N. Hochman for Appellant Mr. Russell Bucklew w/service 03/09/2018. [4638012] [17-3052] (RNH) [Entered: 03/09/2018 02:25 PM]
03/10/2018	RESPONSE in opposition to motion for stay [4638012-2] filed by Attorney Mr. Joshua Divine for Appellees David Dormire, Anne L. Precythe and Troy Steele , w/service 03/10/2018. [4638134] [17-3052] (JD) [Entered: 03/10/2018 10:12 AM]

DATE	PROCEEDINGS
03/12/2018	REPLY to motion [4638012-2] filed by Appellant Mr. Russell Bucklew w/service 03/12/2018. [4638199] [17-3052] (RNH) [Entered: 03/12/2018 09:00 AM]
03/15/2018	JUDGE ORDER: PUBLISHED.; [4638004-2] Hrg Feb 2018 [4639783] [17-3052] SMITH, Chief Judge, WOLLMAN, LOKEN, COLLOTON, GRUENDER, SHEPHERD, KELLY, ERICKSON, GRASZ and STRAS, Circuit Judges DISSENT: Judge Kelly Appellant Bucklew's petition for rehearing by panel is denied. Judge Colloton would grant the petition for rehearing by panel. Appellant Bucklew's petition for rehearing en banc has been considered by the court and the petition is denied. Chief Judge Smith and Judge Kelly would grant the petition. Judge Colloton and Judge Gruender would grant rehearing en banc on Point I of the petition for rehearing en banc. Judge Duane Benton took no part in the consideration or decision of the petition for rehearing en banc. (SRD) [Entered: 03/15/2018 09:30 AM]
03/15/2018	JUDGE ORDER: Bucklew's motion for stay of execution has been considered by the court and is denied. [4638012-2] PUBLISHED ORDER. Hrg Feb 2018 [4640068] [17-3052] (MER) [Entered: 03/15/2018 04:12 PM]
03/15/2018	JUDGE ORDER: A judge in regular active service having requested a poll on

DATE	PROCEEDINGS
	whether to hear Bucklew's motion for stay of execution en banc, a poll was conducted. A majority of the judges in regular active service did not vote to hear the motion en banc. Judge Kelly would hear the motion en banc. Judge Benton took no part in the consideration of this motion. PUBLISHED ORDER. Hrg Feb 2018 [4640079] [17-3052] (MER) [Entered: 03/15/2018 04:29 PM]

* * *

IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF MISSOURI

Case No. 14-08000

RUSSELL BUCKLEW,

Plaintiff,

v.

GEORGE A. LOMBARDI, DAVID A. DORMIRE,
and TERRY RUSSELL,

Defendants.

FIRST AMENDED COMPLAINT

* * *

114. Mr. Bucklew is mindful of the Court's direction to allege a "feasible, alternative method." This requirement has been satisfied by the detailed allegations concerning Mr. Bucklew's medical condition and identification of specific risks posed by Missouri's lethal injection protocol. It is up to the State of Missouri, not Plaintiff, to obtain adequate diagnostic imaging of Mr. Bucklew and to make adjustments that appear to be warranted by the results of the imaging studies.

* * *

IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF MISSOURI

Case No. 14-08000

RUSSELL BUCKLEW,

Plaintiff,

v.

GEORGE A. LOMBARDI, DAVID A. DORMIRE,
and TERRY RUSSELL,

Defendants.

SECOND AMENDED COMPLAINT

* * *

16. Mr. Bucklew recognizes that this Court has directed him to identify a "feasible and readily implemented alternative procedure that will *significantly* reduce a substantial risk of severe pain that the State refuses to adopt." Order of March 18, 2015 at 1 (emphasis in original).

17. However, any effort to identify an "alternative procedure" first requires a proper evaluation of Mr. Bucklew's present medical condition – which has continued to worsen in the past year – and the risks posed to him by an execution under Missouri's protocol.

18. To properly identify and evaluate the risks that are unique and specific to Mr. Bucklew, it is necessary that Mr. Bucklew receive a thorough medical examination, including a high resolution CT scan of his chest, head, neck and brain. Absent a physical exam and up-to-date imaging, any attempt to identify a

"feasible and readily implemented alternative procedure" constitutes nothing more than unsupported speculation.

19. Further, Mr. Bucklew needs the opportunity to conduct basic discovery to ascertain what adjustments or changes the DOC is prepared or willing to make and which changes they may refuse to adopt. Further, in the event that the risks of lethal injection under any scenario are too substantial, Mr. Bucklew needs to ascertain whether Missouri is prepared to proceed with any other method of execution.

20. Mr. Bucklew and his counsel lack medical and scientific expertise, and, further, lack adequate information about Mr. Bucklew's medical condition and the capabilities of the DOC. Under such circumstances, one cannot plausibly – or in good faith – propose a "feasible and readily implemented alternative procedure." Therefore, as will be explained in upcoming motions for discovery and for the appointment of experts, Mr. Bucklew intends to seek the information that would be necessary for him to litigate this case under the standard set forth by this Court.

* * *

IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF MISSOURI
WESTERN DIVISION

Case No. 14-08000-CV-W-BP

RUSSELL BUCKLEW,

Plaintiff,

v.

GEORGE A. LOMBARDI, *et al.*,

Defendants.

ORDER

This matter comes before the Court on Plaintiff's Motion for Leave to File a Third Amended Complaint, (Doc. 39), Defendants' Motion to Dismiss, (Doc. 38), and Plaintiff's Motion to Extend the Deadline for Filing Response to Defendants' Motion to Dismiss, (Doc. 41). For the following reasons, Plaintiff's Motion for Leave to File a Third Amended Complaint is GRANTED, and Plaintiff's Motion for [sic] Extend the Deadline and Defendants' Motion are DENIED as moot.

In his Motion for Leave to File an Amended Complaint, Plaintiff contends the Court must grant him leave to amend his complaint because Rule 15(a) affords him a right to amend his complaint as a matter of course within 21 days of the filing of a responsive pleading. The Eighth Circuit has held that whether a plaintiff exercises the right to amend via a motion with the Court or by simply filing the amended complaint is irrelevant. *See Pure Country, Inc. v. Sigma Chi Fraternity*, 312 F.3d 952, 956 (8th Cir. 2002).

Specifically, the Eighth Circuit has stated: "seeking leave to amend does not, by itself, invoke the district court's discretionary authority to deny leave if the amendment would otherwise fall within the purview of the first sentence of Rule 15(a)." *Id.* (rejecting the argument that "the mere act of filing a motion to amend or seeking leave to amend negates the otherwise applicable 'as a matter of course' language of Rule 15(a)," if that is the portion of the Rule under which plaintiff seeks leave to amend).

Here, because Plaintiff specifically sought leave to file an amended complaint "as a matter of course" under Rule 15(a) within 21 days after Defendants filed their Motion to Dismiss, he has the right to file his Third Amended Complaint as a matter of course. *See* Fed. R. Civ. P. 15(a); *Pure Country*, 312 F.3d at 956. Therefore, Plaintiff shall be granted leave to file his Third Amended Complaint within 3 days of the date of this Order. Because the Third Amended Complaint may raise additional issues that Defendants have not discussed in their pending Motion to Dismiss, the Court will also deny as moot Defendants' Motion so that they may address any additional issues in a second motion to dismiss specific to the Third Amended Complaint.

Accordingly, Plaintiff's Motion for Leave to File a Third Amended Complaint, (Doc. 39), is GRANTED. Plaintiff shall file his Third Amended Complaint within 3 days of the date of this Order. Further, Defendants' Motion to Dismiss, (Doc. 38), is DENIED as moot. However, Defendants may file a motion to dismiss specific to the Third Amended Complaint in accordance with the Federal Rules of Civil Procedure. Additionally, as the Court has denied Defendants' Motion to Dismiss as moot, Plaintiff's Motion to Extend the Deadline for

Filing Response to Defendants' Motion to Dismiss, (Doc. 41), is also DENIED as moot.

IT IS SO ORDERED.

/s/ Beth Phillips
BETH PHILLIPS, JUDGE
UNITED STATES DISTRICT COURT

DATE: June 16, 2015

IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF MISSOURI
WESTERN DIVISION

Case No. 14-08000-CV-W-BP

RUSSELL BUCKLEW,

Plaintiff,

v.

GEORGE A. LOMBARDI, *et al.*,

Defendants.

ORDER DIRECTING PLAINTIFF TO FILE FOURTH AMENDED COMPLAINT

Pending is Defendants' Motion to Dismiss Plaintiff's Third Amended Complaint. (Doc. 47.) The Court agrees with Defendants that Count I of the Third Amended Complaint fails to state a claim, but instead of dismissing the case the Court elects to afford Plaintiff one last opportunity to properly plead his claim.

I. BACKGROUND

As the Court previously observed on May 19, 2014, (Doc. 17, p. 1), the background of a related case is relevant to this litigation. In 2012, Bucklew and others filed suit against these same defendants in the Circuit Court of Cole County, Missouri, and Defendants removed the suit to this Court. That suit has been, and in this Order will be, referred to as either "the *Zink* litigation" or simply "*Zink*" because that was the name of the lead plaintiff. For ease of reference, *Zink*'s case

number was 12-CV-4209-BP.[1] The Court directs the reader to its May 19, 2014 Order for the history of these two cases, and begins here with a recounting of events near that date.

Among other claims, *Zink* alleged that Missouri's death penalty protocol constituted cruel and unusual punishment in violation of the Eighth Amendment. The Court dismissed that claim because the plaintiffs expressly declined to identify an available alternative that did not pose the risks of pain and suffering they had alleged. Meanwhile, Bucklew commenced this suit on May 9, 2014. Count I of Bucklew's Complaint alleged a violation of his Eighth Amendment rights because administering lethal injection to a person with his particular medical condition would constitute cruel and unusual punishment. This claim focused on the fact that Bucklew suffers from a congenital condition known as cavernous hemangioma, which raises unique issues regarding the efficacy and risks of intravenous drugs used in in Missouri's lethal injection protocol. Like the *Zink* Complaint, Bucklew's Complaint failed to allege a feasible and available alternative that would significantly reduce the risk of severe pain and suffering. For that reason, on May 19, 2014 the Court dismissed Bucklew's Complaint *sua sponte* without affording him an opportunity to amend, explaining that Bucklew had declined such an invitation in *Zink* so affording him a chance to do so in this case would be futile. (Doc. 17, p. 12.)

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[1] "The district court may take judicial notice of public records and may thus consider them on a motion to dismiss." *Stahl v. United States Dep't of Agriculture*, 327 F.3d 697, 700 (8th Cir. 2003).

Both dismissals were appealed, and the Eighth Circuit issued decisions in both cases on March 6, 2015.[2] In the *Zink* appeal, the Court of Appeals affirmed the dismissal of Count I and explained that

> to establish a constitutional violation, an inmate ultimately must prove that another execution procedure exists that is feasible and readily implemented, and that the alternative method will significantly reduce a substantial risk of severe pain. *The existence of such an alternative method of execution, therefore, is a necessary element of an Eighth Amendment claim, and this element—like any element of a claim—must be pleaded adequately.*

Zink v. Lombardi, 783 F.3d 1089, 1103 (8th Cir.) (en banc) (per curiam), *cert. denied,* 135 S. Ct. 2941 (2015) (citations omitted; emphasis supplied).

However, the Eighth Circuit vacated the dismissal of Bucklew's Complaint and remanded. The Court of Appeals explained that Defendants' alteration of the protocol in light of Bucklew's medical condition

> tended to support Bucklew's detailed allegations that the State had unreasonably refused to change its regular method of execution to a feasible, readily implemented alternative that would significantly reduce the substantial risk of pain. At a minimum, it should have warned the court not to assume that Bucklew would decline an invitation to amend the as-applied challenge in his complaint simply because the *Zink* plaintiffs had

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[2] There is more to the intervening history, particularly with respect to Bucklew's appeal, but none of it is relevant to the present proceeding.

> declined to amend the very different facial challenge in their complaint.

Bucklew v. Lombardi, 783 F.3d 1120, 1127 (8th Cir. 2015) (en banc). After the Mandate was issued, the Court ordered Bucklew to

> file an amended complaint that meets the pleading requirements for his Eighth Amendment claim and is consistent with the Eighth Circuit's opinions in *Bucklew* and *Zink* . . . . Specifically and in addition to alleging sufficient facts indicating that the execution protocol as applied to him creates a substantial risk of serious harm, Bucklew's amended complaint must identify a feasible, and readily implemented alternative procedure that will significantly reduce a substantial risk of severe pain that the State refuses to adopt. Any assertion that all methods of execution are unconstitutional does not state a plausible claim under the Eighth Amendment or a cognizable claim under § 1983. Bucklew is advised that failure to amend his complaint to comply with the pleading standard discussed in this Order and the Eighth Circuit's opinions will result in dismissal of his Eighth Amendment claim.

(Doc. 29, p. 1 (quotations, citations, and emphasis deleted).) Afterward, Bucklew filed his Amended Complaint. Later, Bucklew was given leave to file a Second Amended Complaint. (Doc. 37.) After Defendants filed a Motion to Dismiss, (Doc. 38), Bucklew responded with a request to file his Third Amended Complaint. (Doc. 39.) The Court again granted Bucklew's request (Doc. 45.) and Bucklew filed his Third Amended Complaint. (Doc. 46.) While the factual allegations have changed and expanded with each version of

Bucklew's pleadings, his legal claims and theories have remained largely the same.

The Third Amended Claim contains three counts; the focus here is on Count I, which asserts an Eighth Amendment claim alleging administration of lethal injection on Bucklew would constitute cruel and unusual punishment. Specifically, Count I alleges that executing Bucklew "by lethal injection will cause extreme and needless suffering" due to the effect his medical condition will have on the administration of any lethal injection protocol, which necessarily depends on the circulatory system for proper application of the drugs. (Doc. 46, ¶¶ 144-45, 148.)

Defendants filed a Motion to Dismiss (Doc. 47); the Court will focus on only two arguments. First, Defendants contend the *Rooker/Feldman*[3] doctrine deprives the Court of jurisdiction over all of Bucklew's claims. Second, Defendants argue that Count I should be dismissed even if the Court has jurisdiction because Count I fails to plead the existence of a feasible and alternative method of execution that will significantly reduce the risk of pain and suffering and thus seeks a ruling that Bucklew cannot be executed at all. Bucklew contends the *Rooker/Feldman* doctrine does not apply because there is no state court decision that would be reversed by a ruling in his favor. Bucklew also insists that the Third Amended Complaint alleges that lethal gas is a feasible and available means of execution.

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[3] The doctrine derives its name from the Supreme Court decisions that created it: *Rooker v. Fidelity Trust Co.*, 263 U.S. 413 (1923) and *District of Columbia Court of Appeals v. Feldman*, 460 U.S. 462 (1982).

II. DISCUSSION

* * *

B. Count I – Cruel and Unusual Punishment

1. *Pleading Requirements*

The Supreme Court recently revisited "what a prisoner must establish to succeed on an Eighth Amendment method-of-execution claim." *Glossip v. Gross*, 135 S. Ct. 2726, 2737 (2015). "[D]ecisions in this area have been animated in part by the recognition that because it is settled that capital punishment is constitutional, it necessarily follows that there must be a constitutional means of carrying it out." *Id.* at 2732-33. Moreover, "because some risk of pain is inherent in any method of execution, we have held that the Constitution does not require the avoidance of all risk of pain." *Id.* at 2733. In light of these observations, a prisoner alleging that a particular form of execution is cruel and unusual within the meaning of the Eight [sic] Amendment must first establish that the method to be utilized "presents a risk that is sure or very likely to cause serious illness and needless suffering, and give rise to sufficiently imminent dangers." *Id.* at 2737 (quotations and emphasis deleted). Second, the prisoner must "identify a known and available alternative method of execution that entails a lesser risk of pain, a requirement of all Eight [sic] Amendment method-of-execution claims." *Id.* at 2731. According to *Glossip*, this is not merely a matter of proof: "the Eighth Amendment requires a prisoner to *plead* and *prove* a known and available alternative." *Id.* at 2739 (emphasis supplied).

Glossip was decided after Bucklew filed his Third Amended Complaint. However, *Glossip* confirmed the Eighth Circuit's holding in *Zink* – and *Zink* was

decided before Bucklew filed each of his three amended complaints. Further, the relevant portion of *Zink* was set forth on pages two and three above, and was quoted extensively in the Court's Order directing Bucklew to file an amended complaint. To reiterate: it is not enough to generally concede that other methods of execution would be constitutional. *Zink*, 783 F.3d at 1103. "The existence of such an alternative method of execution . . . is a necessary element of an Eighth Amendment claim, and this element – like any element of a claim – must be pleaded adequately." *Id.* This means a plaintiff cannot present "barebones" or "formulaic" allegations: the complaint must not only identify a feasible and available alternative, but it must present factual information sufficient to plausibly explain why that alternative will significantly reduce the substantial risk of severe pain. *Id.*; *see also id.* at 1098 (discussing pleading standard generally).

2. *The Third Amended Complaint*

The Third Amended Complaint plausibly explains how and why lethal injection will inflict severe pain and suffering on Bucklew: his medical condition creates a substantial risk that any drugs administered into his circulatory system will not act in the manner that is expected and will expose him to a risk of severe pain. However, the Third Amended Complaint lacks any allegations identifying a feasible and available alternative, as well as any allegations that plausibly explain how such an alternative significantly reduces the risk of pain.

Bucklew insists that he has identified an available alternative: lethal gas. However, review of the Third Amended Complaint demonstrates that he has generally labeled lethal gas as an alternative that exists, but has not actually alleged that it will significantly

reduce the risk of pain and suffering. Moreover, the Third Amended Complaint does not provide a plausible explanation as to how lethal gas would reduce the risk. The four instances in which the Third Amended Complaint mentions lethal gas are set forth below:

1. In an introductory section appearing before the Third Amended Complaint's actual allegations, Bucklew asserts that "[w]ith regard to the issue of an 'alternative method,' that method would have to be determined by the State of Missouri, which presently authorizes execution only by lethal injection or lethal gas. Mo. Rev. Stat. § 546.720.1. It is therefore up to the executive and legislative branches of the State of Missouri to determine which alternative methods of execution are both 'feasible' and 'readily implemented.'" (Doc. 46, p. 4.)

2. Paragraph 21 of the Third Amended Complaint largely repeats the first reference to lethal gas.

3. The third reference to lethal gas alleges that Bucklew "needs the opportunity to conduct discovery to ascertain what other methods of execution would be regarded as both 'feasible' and 'readily implemented' by the State of Missouri. Certainly, there are other methods of execution, including lethal gas . . . and Mr. Bucklew needs to be able to conduct necessary discovery concerning these methods." (Doc. 46, ¶ 24.)

4. The final reference to lethal gas merely reconfirms that lethal gas is authorized as a means of execution in Missouri, (Doc. 46, ¶ 30), so it adds nothing to the discussion.

The first two references (which are virtually identical) do not represent that lethal gas is a feasible and available alternative to lethal injection. Moreover,

these statements seek to shift the responsibility for identifying such an alternative to the Defendants, when *Zink* had already held that the responsibility rested with Bucklew. In concert, these allegations are no better than the general allusions to alternatives that the Eighth Circuit found insufficient in *Zink*. *See Zink*, 783 F.3d at 1103.

The third reference contains no information suggesting a plausible reason for believing lethal gas will significantly reduce the severe risk posed by lethal injection. More importantly, the third reference (and Bucklew's response to the Motion to Dismiss) misapprehends his need for discovery. *Zink* rejected this argument:

> The prisoners further contend that they cannot propose a reasonably available alternative method of execution without discovery of information about the State's present suppliers of lethal drugs, so the *Lombardi* rule is unworkable in practice. . . . Their complaint is accompanied by affidavits from experts who criticize the use of compounded pentobarbital as a lethal drug. These or similar experts presumably are in a position to know and to inform the prisoners whether some other lethal drug exists that would significantly reduce the alleged risk of pain arising from the current method. In any event, the Supreme Court has rejected the notion that discovery must be available to a plaintiff who cannot allege sufficient factual matter to suggest plausibly an entitlement to relief.

Zink, 783 F.3d at 1105-06. Bucklew underwent an examination in or around May 2014, and the results of that examination have enabled him to present expert affidavits opining about the effect of lethal injection in light of his physical condition. *Zink* explains that

Bucklew should rely on those same experts to opine about the effects of the chemicals capable of being used in the gas chamber, or rely on them to suggest another means of execution that will significantly reduce the risk of severe pain and suffering occasioned by his cavernous hemangioma. Bucklew can identify as many or as few alternatives as his experts might suggest. If he does so, Defendants will be required to file an Answer, at which time they can contest Bucklew's allegations or adopt one of Bucklew's alternatives.

Bucklew also suggests that he needs to conduct discovery to find out what the State might regard as "available" or "feasible." However, as the concluding passages from the *Zink* quote on the preceding page suggests, a plaintiff does not have the right to conduct discovery before pleading his or her claim. "'Rule 8 marks a notable and generous departure from the hyper-technical, code pleading regime of a prior era, but it does not unlock the doors of discovery for a plaintiff armed with nothing more than conclusions.'" *Id.* at 1106 (quoting *Ashcroft v. Iqbal*, 556 U.S. at 678-79 (2008)). If Defendants deny Bucklew's contention that a particular method of execution is available or feasible, discovery will commence on that issue. And, if such discovery reveals the availability or feasibility of a different, as-yet unpleaded method, there are procedures available to deal with such an eventuality. But a properly pleaded claim comes before, not after, discovery.

Both *Zink* and *Glossip* require Bucklew identify a feasible and available alternative that significantly reduces the risks of severe pain and suffering in order to properly plead this claim. The Third Amended Complaint fails to contain such allegations, and thus fails to state a claim.

3. *Dismissal or Amendment?*

After significant deliberation, the Court exercises its discretion and will permit Bucklew to submit one last Amended Complaint. There are certainly reasons not to permit this opportunity: Bucklew's original Complaint did not plead an alternative despite the Court ordering him to do so in *Zink*. The Eighth Circuit then affirmed the requirement for such allegations in affirming *Zink*. In remanding Bucklew's appeal, the Eighth Circuit specifically directed that "at the earliest possible time, [Bucklew] must identify a feasible, readily implemented alternative procedure that will *significantly* reduce a substantial risk of severe pain and that the State refuses to adopt." *Bucklew*, 783 F.3d at 1128 (emphasis in original). Bucklew then amended his Complaint three more times – and still chose to not include allegations identifying a feasible and available alternative.

Nonetheless, the Court will afford a final opportunity for Bucklew to submit a Complaint that satisfies the pleading requirements. No discovery will be ordered for the reasons stated above.

In granting this opportunity, the Court wishes to be extremely clear: this is fifth and last time Bucklew will be given the opportunity to correctly plead his Eighth Amendment claim.

III. CONCLUSION

Bucklew shall have twenty-one calendar days to file a Fourth Amended Complaint that amends Count I to comply with the pleading requirements for the claim asserted therein. Once this is done, the Court will solicit Defendants' input as to how they wish to proceed.

IT IS SO ORDERED.

/s/ Beth Phillips
BETH PHILLIPS, JUDGE
UNITED STATES DISTRICT COURT

DATE: September 21, 2015

IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF MISSOURI

Case No. 14-08000

RUSSELL BUCKLEW,

Plaintiff,

v.

GEORGE A. LOMBARDI, DAVID A. DORMIRE,
and TERRY RUSSELL,

Defendants.

FOURTH AMENDED COMPLAINT

Plaintiff Russell Bucklew, by and through his counsel, hereby files his Fourth Amended Complaint, requesting this Court declare and enforce his rights under the First and Fourteenth Amendments and issue an injunction under 42 U.S.C. § 1983 and the Eighth Amendment commanding defendants not to carry out any execution by lethal injection on him. Because of Mr. Bucklew's unique medical condition, Missouri's execution procedures will almost certainly cause him to suffer a bloody, prolonged and excruciating death.

As required by this Court in light of the Supreme Court's decision in *Glossip v. Gross*, 135 S. Ct. 2726 (2015), Mr. Bucklew specifically alleges a "feasible, alternative" method of execution, lethal gas. This alternative method is specifically authorized by Missouri law, Mo. Rev. Stat. § 546.720.1, and will significantly

reduce the risk of severe pain by avoiding the circulation of the lethal agent through Mr. Bucklew's impaired and abnormal vascular system. (Doc. 52 at 7-8)

Mr. Bucklew suffers from a rare disease – cavernous hemangioma – that is unique, severe, and progressive. Since Mr. Bucklew filed the present lawsuit in May 2014, his condition has grown significantly worse, with the blood-engorged, unstable tumors in his head and throat causing daily pain, regular bleeding, and an ever-enlarging obstruction to his airway, causing him to struggle for air when he lies flat. The blood-filled tumors are prone to rupture under stress or any rise in blood pressure. When this occurs, Mr. Bucklew bleeds through his facial orifices and in his throat, further obstructing his airway and causing him to choke. These vascular abnormalities also create a great risk that the lethal drug will not circulate as intended in Mr. Bucklew's body, leading to a prolonged and very painful death.

Any attempt to execute Mr. Bucklew under Missouri's present protocol, or by *any* means of lethal injection, will almost inevitably lead to a prolonged and tortuous execution, with Mr. Bucklew hemorrhaging, struggling to breathe and suffocating. Because lethal gas will bypass Mr. Bucklew's impaired circulatory system, it is more likely than any other feasible and available alternative method to significantly reduce the risk of severe pain. *See Glossip*, 135 S. Ct. at 2737.[1] The use of lethal gas, for instance, will likely reduce the great risk that Mr. Bucklew will choke and suffocate on his

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[1] A firing squad would similarly reduce the risk of severe pain, but it is not authorized under Missouri law. Mo. Rev. Stat. § 546.720.1

own blood; it is also likely to significantly reduce the likelihood of a prolonged and excruciating execution.

The use of lethal gas is both a "known" and "available" alternative, as it is one of the two methods specifically authorized by Missouri statute, Mo. Rev. Stat. § 546.720.1. Given the State of Missouri's unwillingness to disclose the most basic information regarding its execution protocol and procedures – refusing to confirm, for instance, even the type of drug it is using, whether manufactured or compounded pentobarbital – and given the DOC's refusal to obtain up-to-date medical imaging of Mr. Bucklew's hemangiomas, it appears that, by far, the most "feasible" method with this medically fragile prisoner is to employ the alternative method of lethal gas.

INTRODUCTION

1. Mr. Bucklew has suffered his entire life from a dangerous, and, at times, debilitating congenital condition – cavernous hemangioma – that causes clumps of weakened, malformed vessels to grow in his head, face, neck, and throat, displacing healthy tissue and rupturing under stress. Mr. Bucklew has had this condition since birth, and his vascular malformations have grown progressively worse throughout adulthood, causing constant facial pain and pressure, labored breathing, and impairment of his hearing and vision.

2. Mr. Bucklew's vascular malformations have proved resistant to any form of medical or surgical treatment. Surgery has been rejected because the results would be both disfiguring and disabling, and the only medical treatment for the past several years has been pain management.

3. Mr. Bucklew's vascular tumors are massive, occupying his nose, throat, and airway passages. He

hemorrhages on a regular basis, and sometimes experiences a major rupture with extensive bleeding.

4. The size of Mr. Bucklew's tumors and the weakness of his distended vessels create a very substantial risk that he will suffer excruciating, even tortuous pain during an execution.

5. Because the vascular tumors partially obstruct Mr. Bucklew's airway, he is at high risk of choking during an execution, particularly if the distended vessels in his mouth or throat rupture and bleed. This will cause gasping, coughing and choking that Mr. Bucklew will experience as suffocation.

6. There is also a grave risk that, because of Mr. Bucklew's severe vascular malformations, the lethal drug will not circulate as intended, delaying the suppression of the central nervous system and prolonging the execution – which will likely cause excruciating pain to Mr. Bucklew. These grave risks – which establish that execution by lethal injection is highly likely to violate Mr. Bucklew's rights under the Eighth Amendment – are heightened even further by the use of a drug, pentobarbital, whose provenance Missouri has shrouded in complete secrecy.

7. Because of his unique condition, which poses specific and substantial risks, Mr. Bucklew cannot be executed under Missouri's protocol without inflicting cruel and unusual punishment in violation of the Eighth Amendment of the United States Constitution.

8. Mr. Bucklew's medical condition is well documented in the Department of Corrections' own records, which describe the hemangiomas as "very massive" and "extensive" with "bulging lesions." As repeatedly documented, the hemangiomas cause chronic facial pain, recurrent bleeding, frequent headaches and spells

of dizziness and even loss of consciousness. Mr. Bucklew also suffers from impaired hearing and vision.

9. Various therapies to treat the hemangiomas – including chemotherapy, radiation therapy and sclerotherapy – have all failed, and doctors have stated that any effort to remove them surgically would be "mutilating and very risky as far as blood loss." Mr. Bucklew is presently on a regimen of daily narcotic pain medication.

10. Mr. Bucklew's vascular tumors have grown throughout his adult life, including his 19 years in prison, and have continued to grow progressively larger in the last year. More recently, the growing tumors in his throat have increasingly interfered with his ability to speak clearly, typically causing labored breathing and slurred, indistinct speech.

11. Despite the progressive nature of his condition and Missouri's obligations under the Eighth Amendment, the Department of Corrections (DOC) has obtained no diagnostic imaging (CT scans or MRI) in the past five years. This is significant because the imaging studies are necessary to guide proper medical care and the day-to-day management of Mr. Bucklew's condition. They also are essential to provide the information that Mr. Bucklew needs to litigate his present claims. Indeed, even though Mr. Bucklew has made clear for more than a year his need for up-to-date imaging, the Department of Corrections still has not arranged such diagnostic testing, despite its constitutional obligation to do so.

12. By the mid-1990s, doctors noted that Mr. Bucklew's hemangiomas were impinging on his airway. In 2010, an MRI established that the large degree of

airway obstruction was beyond dispute. Following an MRI in June 2010 – the last diagnostic imaging of Mr. Bucklew – the treating physician issued a report to the DOC describing Mr. Bucklew's tumors as a "large complex right facial mass" that extended through the right-side nasal passages, sinuses, pharynx, jaw, palate and throat. As a result of the large mass, Mr. Bucklew's *"airway is severely compromised."* (Emphasis added).

13. Two highly trained, board-certified physicians – an anesthesiologist who teaches at the Emory University School of Medicine and a neuroradiologist who practices at St. Luke's Hospital in St. Louis – have provided sworn statements stating that Mr. Bucklew's vascular malformations create a significant risk that the lethal drug will not circulate properly during an execution. This will create a great risk of prolonging the execution and causing Mr. Bucklew to suffer excruciating pain.

14. Both doctors state in their affidavits that an examination of Mr. Bucklew and his vascular malformations is necessary to evaluate the specific risks to Mr. Bucklew during an execution by lethal injection. An adequate examination would necessarily include up-to-date medical imaging.

15. Dr. Joel Zivot, the Emory anesthesiologist, has reviewed Mr. Bucklew's medical records and imaging studies and has also examined him at the prison.[2] He has also spoken recently with Mr. Bucklew by telephone to obtain updated information regarding his symptoms. In his sworn statements, Dr. Zivot has

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[2] Dr. Zivot examined Mr. Bucklew in the prison cafeteria, which was the space the administration at Potosi Correctional Center made available.

addressed the risk of Mr. Bucklew hemorrhaging during an execution as well as the risks posed by the severe degree of Mr. Bucklew's airway obstruction, which could readily lead to choking and suffocation.

16. Following his review, Dr. Zivot provides his expert opinion in great detail, stating the following points:

– a substantial risk exists that Mr. Bucklew will suffer from "extreme or excruciating pain as a result of hemorrhaging or abnormal circulation of the lethal drug, leading to a prolonged execution";

– Mr. Bucklew's airway, partially obstructed by unstable and blood-engorged tumors, creates a very substantial risk that Mr. Bucklew could choke, cough and gasp for air during an execution;

– the mass in his airway continues to increase in size, likely causing the labored breathing and speech difficulties that Mr. Bucklew has experienced in recent months;

– during an execution by lethal injection, Mr. Bucklew is at high risk of a blood pressure spike, and such a spike greatly increases the risk that Mr. Bucklew will suffer hemorrhaging in his face, mouth and throat, leading to further coughing and choking and increasing the risk of suffocation; and,

– Mr. Bucklew's multiple medications create a substantial risk of an adverse drug interaction during an execution by lethal injection.

(*See* Exhibit 1 at ¶¶ 15, 17, 18, Zivot Declaration of May 8, 2014; *see also* Exhibit 4 at ¶¶ 4-17; Exhibit 5 at ¶¶ 6-21).

17. To monitor the delivery of the drug and flush the intravenous lines, the training regimen for Missouri

executions has historically provided for the use of methylene blue as a dye in the IV line. (Exhibit 1 at ¶ 17) As Dr. Zivot noted, however, methylene blue tends to cause a rise in blood pressure – a dangerous side effect that would likely prompt Mr. Bucklew's hemangiomas, already engorged with blood, to "rupture, resulting in significant bleeding in the face, mouth and throat." If blood enters Mr. Bucklew's airway, "it would likely cause choking and coughing, which Mr. Bucklew will experience as severe pain and suffocation." (Exhibit 1 at ¶ 18; Exhibit 5 at ¶ 29). Moreover, the use of methylene blue creates a great risk of a dangerous drug interaction with the regular medications that are prescribed to Mr. Bucklew, including those that are necessary to treat his psychiatric condition. (Exhibit 5 at ¶¶ 30-35).

18. Mr. Bucklew brings this lawsuit, as the sole plaintiff, because his situation is unique and the risks to him during an execution are grave. The claims raised in this suit are based on his particular medical condition and are separate and distinct from those raised in *Zink v. Lombardi*, Case No. 12-4209 (W.D. Mo).

19. Unlike the Eighth Amendment claims in the Zink case, which specifically challenged the use of compounded pentobarbital, Mr. Bucklew's claims rest on his specific and unique medical condition. Although the risks to Mr. Bucklew are heightened further by Missouri's alleged use of a compounded drug of unknown origin, purity and potency, lethal injection by *any* drug creates a very substantial risk that Mr. Bucklew will suffer hemorrhaging, choking and suffocation during the execution, thereby inflicting cruel and unusual punishment in violation of the Eighth Amendment.

20. Thus, it is clear that the claims of Mr. Bucklew are wholly separate from the claims raised in *Zink*. It is also clear from the stay of execution granted by the United States Supreme Court that Mr. Bucklew's ability to prevail on his claims bears no relationship to the ability of the other *Zink* petitioners to prevail on theirs. Indeed, the two cases rest on completely separate and distinct facts and legal theories.

21. Mr. Bucklew further alleges that the claims raised in *Zink* may have been *moot* at the time they were raised. To the extent that those claims rested on the claim that Missouri was using compounded pentobarbital, reasonable inferences from the known facts – including Missouri's steadily growing inventory of pentobarbital, much of which has been stockpiled for months – strongly suggest that since approximately February 2014, Missouri has been using *manufactured* pentobarbital, not *compounded* pentobarbital.

22. *Alone* among all of the states conducting executions and using pentobarbital, Missouri has had ongoing, unimpeded access to a steady supply of pentobarbital, permitting it to build up its inventory to an amount sufficient to conduct 16 or more executions. The stockpiling of pentobarbital is inconsistent with the use of the compounded form of the drug, which has a very short shelf life.

23. What is also telling – and seems to confirm that the DOC is no longer using compounded pentobarbital – is that Missouri has recently begun hedging in its pleadings, stating in a filing with the United States Supreme Court that it did not "admit or

deny" that Missouri is using compounded as opposed to manufactured pentobarbital.[3]

24. In Mr. Bucklew's case, the State of Missouri has similarly made its arguments in carefully couched language, and recently suggested that it was *Mr. Bucklew, not the State of Missouri*, who originated the allegation that Missouri uses the compounded form of pentobarbital in carrying out executions. In its second Motion to Dismiss, Defendants state: "Bucklew does not limit his allegations to compounded pentobarbital, which is the type of pentobarbital *he alleges* will be used in the execution." (Doc. 47 at 8) (emphasis added). This coy deflection by Defendants further cements the wall of secrecy surrounding Missouri executions.

25. The extreme secrecy regarding the nature of the pentobarbital used by Missouri is troubling, as the sole FDA-approved source of pentobarbital, manufacturer Akorn, prohibits its suppliers from selling to correctional institutions. http://investors.akorn.com/phoenix.zhtml?c=78132&p=irol-newsArticle&ID=2022522 This suggests that Missouri's growing inventory of pentobarbital may have been procured through improper means. If Missouri is using manufactured pentobarbital, then it is either: obtaining pentobarbital manufactured by Akorn in violation of Akorn's purchasing agreements, or it is using pentobarbital manufactured for veterinary use that is not approved for use in humans,

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[3] Although Missouri has maintained since October 2013 that its lethal drug is a 5 gram dose of *compounded* pentobarbital, it has recently hedged about this, stating in its brief in opposition to the petition for writ of certiorari in *Zink v. Lombardi*, Case No. 14-9223, that it "does not admit or deny the chemical now used is compounded as opposed to manufactured [pentobarbital]." Brief in Opposition (filed April 30, 2015).

or it is obtaining pentobarbital illegally from a non-FDA approved, foreign source.

26. Putting aside the issue of the drug's origin, Mr. Bucklew's medical condition is so grave and the risks of hemorrhage and airway obstruction are so great that execution by lethal injection with *any* drug creates a very substantial risk that Mr. Bucklew will suffer a tortuous and prolonged execution, in violation of the Eighth Amendment's prohibition on cruel and unusual punishment.

27. To properly proceed with his Eighth Amendment claims – supported primarily at this point by a physician who has not been granted access to conduct a full examination – Mr. Bucklew needs a complete medical exam complete with appropriate imaging studies. (Exhibit 1 at ¶¶ 20-21, 31; Exhibit 4 at ¶ 17; Exhibit 5 at ¶¶ 16-18, 38).

28. To adequately identify and evaluate the risks that are unique and specific to Mr. Bucklew – and therefore to provide the further factual underpinning for his Eighth Amendment claims – Mr. Bucklew must be provided a high resolution CT scan of his chest, head, neck and brain as well as an angiogram to assess the degree of vascularity of Mr. Bucklew's hemangiomas. (Exhibit 1 at ¶¶ 20-21; Exhibit 4 at ¶ 17; Exhibit 5 at ¶¶ 16-18, 38). Obtaining this information will allow Mr. Bucklew to establish that execution by lethal injection creates a "substantial risk of serious harm" and an "objectively intolerable risk of harm" and is "sure or very likely to cause serious illness and needless suffering." *Baze v. Rees*, 553 U.S. 35, 50-52 (2008).

29. Although Mr. Bucklew's counsel lack the medical and scientific expertise necessary to conduct in-depth research evaluating alternative methods

of execution,[4] the research they have been able to conduct allows them to conclude that lethal gas is a "feasible" and "alternative" method that is highly likely to "significantly reduce the risk of severe pain" as it bypasses Mr. Bucklew's circulatory system. With execution by gas, the lethal agent enters the body through the lungs, presumably causing death without prolonged or excruciating pain.

30. Lethal injection is not only authorized by the State of Missouri, the DOC also appears to have an execution chamber available for the use of lethal gas. (*See* Exhibit 6, photograph of Missouri gas chamber). Indeed, section 546.720.1 states that the director of the DOC is "directed to provide a suitable and efficient room or place . . . and the necessary appliances for carrying into execution the death penalty by means of the administration of lethal gas or . . . lethal injection." Further, Missouri Attorney General Chris Koster has publicly stated that the gas chamber is an "option we have to enforce Missouri law" if death by lethal injection is not feasible or possible. *See* Associated Press, "Missouri Could Resort to Gas Chamber

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[4] Although Dr. Zivot has been both willing and able to thoroughly acquaint himself with Mr. Bucklew's medical condition and render opinions regarding the severe risks posed by lethal injection, he has also made clear, that, as a medical doctor, he is "ethically prevented from prescribing or proscribing a method of executing a person." Exhibit 5 at ¶ 5. Dr. Zivot also points out that he is a member of the American Society of Anesthesiology, and that if any board-certified anesthesiologist participated in lethal injection he or she would lose board certification. *Id.* Dr. Zivot is bound by his profession's ethics. Although he can identify and opine on the risks associated with lethal injection under Missouri's protocol, he attests that he "cannot advise counsel or the Court on how to execute Mr. Bucklew in a way that would satisfy Constitutional requirements."

Attorney General Warns." *St. Louis Post Dispatch*, July 3, 2013, available at: http://www.stltoday.com/news/local/crime-and-courts/missouri-could-resort-to-gas-chamber-attorney-general-warns/article_7470560c-2ae3-5b38-91f5-0c8d77a91c86.html. Under these circumstances, it would appear that the use of lethal gas is certainly "feasible."

JURISDICTION AND VENUE

31. Jurisdiction is conferred by 28 U.S.C. § 1331 and § 1343, which provide for original jurisdiction of this Court in suits based respectively on federal questions and authorized by 42 U.S.C. § 1983, which provides a cause of action for the protection of rights, privileges or immunities secured by the Constitution of the United States. Jurisdiction is further conferred by 28 U.S.C. § 2201 and § 2202, which authorize actions for declaratory and injunction relief.

32. Venue is proper in the Western District of Missouri under 18 U.S.C. § 1391(b)(1)-(3) in that defendant Lombardi resides in the territorial jurisdiction of this district, and defendant Lombardi's decisions regarding Missouri's execution protocol are made within this court's territorial jurisdiction.

PARTIES

33. Plaintiff Russell Bucklew is a resident of the State of Missouri and presently resides at Potosi Correctional Center in Mineral Point, Missouri. He is sentenced to death, and was scheduled to die by lethal injection on May 21, 2014, but obtained on that date a stay of execution from the United States Supreme Court, pending the outcome of his appeal to the Eighth Circuit Court of Appeals, *Bucklew v Lombardi*, Case No. 14-2163. Mr. Bucklew has exhausted his claims administratively through Potosi's grievance procedures.

34. Defendant George Lombardi is the Director of the Department of Corrections (DOC) of the State of Missouri. His office is located at the DOC's central office at 2729 Plaza Drive, Jefferson City, Missouri.

35. A Missouri statute, Mo. Rev. Stat. § 536.720, authorizes and directs the Director of the DOC to prescribe and direct the means by which the Department carries out executions within the statutorily prescribed methods of lethal gas or lethal injection. Director Lombardi fulfills that statutory role and carries out those responsibilities.

36. Defendant David R. Dormire is the Director of the Division of Adult Institutions at the Department of Corrections of the State of Missouri. His office is also at the DOC's central office in Jefferson City, Missouri.

37. Defendant Dormire is the chief executive officer of the Division of Adult Institutions, and has command-and-control authority over the DOC officials, officers, contractors and employees who are involved, directly or indirectly, with carrying out executions.

38. Defendant Terry Russell is the Warden of the Eastern Reception and Diagnostic & Correctional Center (ERDCC), 2727 Highway K, Bonne Terre, Missouri. The State of Missouri has conducted its executions at ERDCC since April 2005.

39. By virtue of his authority over the staff at ERDCC, defendant Russell is responsible for the manner in which executions are conducted in Missouri.

40. All defendants are sued in their official and individual capacities. All actions taken by them are taken under color of state law.

FACTUAL BACKGROUND

Russell Bucklew's Medical Condition

41. Mr. Bucklew has suffered from the symptoms of congenital cavernous hemangioma his entire life, including frequent hemorrhaging through his facial orifices, disturbances to his vision and hearing, difficulty breathing, pain and pressure in his head, constant headaches, dizziness, and episodes of loss of consciousness. He frequently bleeds through his mouth, nose and ears, and has sometimes bled even through his eyes.

42. The hemangiomas—which are clumps of weak, malformed vessels – fill Mr. Bucklew's face, head, neck and throat, displacing healthy tissue and stealing blood flow from normal adjacent tissues, depriving those tissues of necessary oxygen. (Exhibit 1 at ¶ 13).

43. The hemangiomas are vascular tumors, and, by their nature, these tumors continuously expand. Although the tumors are classified as benign, their growth is locally invasive and destructive.

44. Over the years, Mr. Bucklew's doctors have noted recurrent episodes of bleeding and associated hospitalizations. One doctor consulted about the bleeding stated: "I have real concerns that this I/M [inmate] may have future *uncontrollable bleeding*." (Emphasis added). Another doctor noted the "increasing frequency of bleeding [in the] oral cavity and nose."

45. Mr. Bucklew's hemangiomas grow throughout his head, neck and throat, protruding even into his airway, causing labored breathing and requiring him to sleep with his upper body elevated. Doctors have repeatedly noted the looming threat from the growing

obstruction in Bucklew's airway. A specialist examining Bucklew in 2010 stated that a "complex right facial mass" extended to the parapharyngeal space and occupied a large area with the "oropharynx and hypopharynx" right above the epiglottis. As a result, Mr. Bucklew's airway, partially obstructed for many years, was now *"severely compromised."* (Emphasis added). In the last five years, Mr. Bucklew has particularly suffered from labored breathing and cannot sleep lying flat as the tumor then fully obstructs his airway.

46. Over the years, doctors have attempted treatment on many occasions, only to conclude that the available treatments – chemotherapy, sclerotherapy, radiation therapy and surgery – have all failed and that they offer no appreciable chance of success.

47. In 1991, a specialist who examined Mr. Bucklew and treated his hemangioma for many years noted that any attempt to surgically remove the vascular tumor "would require extensive surgery which would be mutilating and *very risky as far as blood loss.*" (Emphasis added).

48. In April 2012, another doctor's report notes the minimal success of the various attempts at treatments and states: "The large size makes the hemangioma not amenable to sclerotherapy." The report also notes that surgery would result in "large concomitant disability and disfiguration."

49. Doctors have described the hemangiomas as "very massive," "extensive" and a "large complex . . . mass." In March 2003, a physician caring for Mr. Bucklew wanted him examined immediately by a specialist because of the progression of the vascular tumor, which the doctor believed "could be *potentially fatal to the patient.*" (Emphasis added).

50. In 2011, a doctor described the alarming expansion of the hemangioma, stating it encompassed "the entire soft palate and uvula, which are impossible to visualize due to the expansion of the lesion." The doctor further noted: "This lesion also extends into the right cheek and entire right maxilla. *This has been present for 20 plus years but has increasingly grown larger and larger.*" (Emphasis added).

51. Throughout the medical records, doctors repeatedly warn of the ongoing expansion of the vascular tumor. There are also many references to "recurrent bleeding," pain associated with bleeding, and increasing frequency of oral and facial hemorrhages.

52. The possibility of another attempt at treatment was dismissed in April 2011, when Mr. Bucklew's doctor observed "there was minimal benefit from the previous sclerotherapy" and that the "large size" of the hemangioma precluded effective treatment with sclerotherapy.

53. A physician's report in 2011 noted Mr. Bucklew's increasing anxiety regarding the growth of the hemangiomas and the obstruction of his airway: "He is also afraid that the hemangioma will occlude his throat and he cannot breathe." Subsequent reports document difficulty with "bleeding management," and a report in March 2013 describes an episode of severe pain, with lightheadedness and loss of consciousness. Doctors ordered narcotic drugs for pain.

54. Periodically, the blood-filled tumors rupture, and Mr. Bucklew bleeds in his throat and through his facial orifices. Medical personnel provide gauze and biohazard bags so that he can collect the bloody discharge.

55. Mr. Bucklew frequently suffers from nausea, dizziness and bouts of excruciating pain. He is treated with narcotic pain medication, which he must take three times per day.

56. In recent months, Mr. Bucklew's condition has continued to worsen, a course long predicted by his doctors given the progressive nature of cavernous hemangioma. He is experiencing increased episodes of pain and dizziness and has ongoing problems with balance and coordination. The bleeding in his nasal and oral cavities has grown worse, and the bloody tumors are now pressing into Mr. Bucklew's right eye, causing problems with his vision.

57. In addition, the "massive hemangioma" growing in Mr. Bucklew's airway increasingly causes "stridor" (noisy and labored breathing), and it often makes it difficult for Mr. Bucklew to speak clearly. (*See* Exhibit 5 at ¶ 21).

58. Along with the tumor growth, Mr. Bucklew has also experienced a vast array of new and deeply troubling psychiatric symptoms in recent months. Although he previously suffered from extreme anxiety and mood swings, Mr. Bucklew's mental issues have grown dramatically worse since May 2014.

59. Following his return to Potosi Correctional Center from the death house at Bonne Terre (where he came within hours of execution), Mr. Bucklew has suffered from auditory and visual hallucinations, flash-backs, nightmares, and episodes of uncontrollable crying. In a short period of time, he lost 20 pounds and suffered constant insomnia. A prison psychiatrist diagnosed him with "stress-induced psychotic reaction." For the past 10 months, Mr. Bucklew has been on a

heavy regimen of psychiatric drugs, including medication used to treat psychosis, schizophrenia and bipolar disorder.

Missouri's Lethal Injection Protocol

60. Missouri's lethal injection protocol calls for the administration of 5 grams of pentobarbital,[5] divided into two syringes, and administered through an IV line into the execution chamber, where the prisoner is alone and strapped to a gurney. No medical personnel are close at hand, and the prisoner is monitored remotely from the "execution support room." Although medical personnel insert the IV lines at the outset, the lethal drug itself is injected by non-medical personnel pushing syringes into the IV line at a pre-determined flow rate.

61. The procedure itself begins with the insertion of the IV lines – one in each arm (or a central line in the femoral, jugular or subclavian vein if venous access in the arms is limited). About 15 to 30 minutes before the lethal drug is injected, a saline solution, which has historically been colored with methylene blue (or another dye), is injected into the prisoner to determine if the lines are clear. The gurney is positioned so medical personnel can remotely observe the prisoner's face, directly, "or with the aid of a mirror." Medical personnel "monitor" the prisoner remotely during the execution.

62. Non-medical personnel administer the lethal drug through syringes into the IV lines. After the administration of the initial 5 grams of pentobarbital,

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[5] Missouri's protocol is silent on whether the pentobarbital is compounded or manufactured. It appears that the written protocol would allow the use of either form of the drug.

the nonmedical personnel flush the IV lines with saline and methylene blue. Shortly thereafter, the execution chamber's curtains are closed and medical personnel check the prisoner to see if he is dead.

63. If the prisoner is not dead, then non-medical personnel then inject an additional 5 grams of pentobarbital through two additional syringes.

64. During the administration of the lethal drug, no one is in the execution chamber other than the prisoner, and no medical personnel are at hand. The prisoner is monitored only remotely from the "execution support room." The members of the execution team only enter the execution chamber when the curtains are closed and only to determine if the prisoner has died. They check after administration of the first 5 grams of pentobarbital, and then again after the administration of the second 5 grams of pentobarbital.

65. If the prisoner does not die after the administration of 10 grams of pentobarbital, Missouri's protocol provides no further guidance. The protocol is completely silent on what procedures to follow in the event the lethal drugs do not properly enter the prisoner's body or do not properly circulate within the body.

66. If the prisoner is not killed by the execution, there is no protocol or equipment for resuscitating the prisoner.

67. If the execution is halted, and the prisoner remains alive, the State of Missouri must resume medical care of the prisoner, as it is obligated to do under the Eighth Amendment of the United States Constitution. Missouri's protocol is completely silent on this possible scenario.

68. A 2014 execution in Oklahoma was halted because the lethal drugs did not properly enter the prisoner's body and did not cause death. The prisoner, Clayton Lockett, reportedly died of a heart attack after the attempt to execute him failed. After Mr. Lockett groaned and writhed and it was clear he was still alive, Oklahoma officials hastily closed the window blinds on the execution chamber. They reportedly considered taking Lockett to the hospital to resuscitate, but it was too late. A subsequent review of the botched execution concluded that an improperly placed intravenous line allowed the drugs to perfuse surrounding tissue rather than flowing directly into Lockett's bloodstream. The problems with the Lockett execution could recur – in an even more horrific fashion – with an attempt to execute Mr. Bucklew, given his gross vascular abnormalities and the risk of venous rupture.

69. Mr. Bucklew's unique vascular malformations create a substantial risk that the execution will not proceed as intended, and that the lethal drug will not properly enter or circulate in Mr. Bucklew's body, leading to an ugly, prolonged and excruciating execution. The weak, malformed veins in Mr. Bucklew's head and throat could easily rupture – leading to facial bleeding, internal hemorrhaging, choking and suffocation.

70. The risk that the lethal drug will not properly enter Mr. Bucklew's veins is heightened by the apparent abandonment – at least at present – of the use of any dye in the IV line. (It is not known whether this change is temporary or permanent, and, of course, the use of methylene blue carries its own risks). Although the execution team training records show that they have been trained to carry out their tasks aided by the use of a dye in the IV line – which helps

team members determine if the solution is flowing properly into the prisoner's veins as opposed to diffusing in the surrounding tissue – records recently obtained through a request under Missouri's Sunshine Act, Mo. Rev. Stat. 610.010 *et seq.*, show that the Department of Corrections has not possessed either methylene blue or indigo carmine since February 2015. Nothing in the protocol specifically addresses the use of dye or how team members – including its non-medical members – can safely run the IV line and inject the lethal drug in the absence of a visual indicator that the line is flowing properly.

71. Further, there is no aspect of Missouri's execution protocol that addresses how to handle the risks posed by a prisoner's unique medical or physical condition, particularly a congenital vascular malformation such as Mr. Bucklew's, which creates very grave risks. The last-minute protocol adjustments proposed by the State of Missouri in May 2014, as discussed below, not only fail to ameliorate any potential risks to Mr. Bucklew, they actually increase the risk of an extended, excruciating procedure that will be visually horrifying to witnesses and tortuous for Mr. Bucklew.

72. Although Mr. Bucklew's medical records run into the thousands of pages, the "Pre-Execution Summary of Medical History" – to be reviewed by medical personnel on the execution team – is merely one page, asking such simple questions as whether the "offender recently had a cold or flu" or suffered from "back pain."

73. There is no consideration of adverse medication interactions or serious chronic conditions or grave

illness. A "yes" answer to any of the screening questions must be answered in three lines at the bottom of the page.

74. Missouri's protocol is grossly inadequate to address the significant risks to Mr. Bucklew during an execution – risks that could cause a prolonged and excruciating procedure, in which Mr. Bucklew hemorrhages through his mouth, nose, eyes or ears, and chokes or suffocates on his own blood.

75. No medical assistance will be at hand – instead the "medical personnel" will be watching from the "execution support room," unable to lend any aid to Mr. Bucklew.

Affidavit of Dr. Gregory Jamroz

76. Gregory Jamroz, M.D. is board-certified radiologist. He practices in the specialty of neuroradiology at St. Luke's Hospital in St. Louis, Missouri.

77. After reviewing the medical records of Mr. Bucklew, Dr. Jamroz concluded to a reasonable degree of scientific certainty that the use of a blood-borne sedative or other drug would not likely bring about a rapid, humane death for Mr. Bucklew, given his unique medical condition. (Exhibit 2 at ¶ 23). Dr. Jamroz stated that Bucklew's vascular malformations cause "shunting" of the blood, which would likely affect the circulation of the lethal drug to the brain.

78. Dr. Jamroz opined that an examination was essential to determine the precise quantity of shunting. But regardless of the "quantity of shunting, [the] presence of vascular malformations compromises the supply of blood to the brain." (Exhibit 2 at ¶ 21). These malformations have been present in Mr. Bucklew's head and neck since infancy. (Exhibit 2 at

¶ 14). The hemangiomas are "tangle[s] of arteries and veins" with "low vascular resistance," which leads to "shunting" of the blood and decreased blood flow to the brain. (Exhibit 2 at ¶¶ 15-19)

79. Dr. Jamroz concluded: "[I]t is my opinion to a reasonable degree of scientific certainty that reliance on a blood-borne sedative or other substance to bring about a rapid and painless death in Mr. Bucklew's case is questionable, and that in light of the pre-existing medical condition discussed in this declaration, examination of the vascular malformations is indicated . . . ." (Exhibit 2 at ¶ 23).

Affidavit of Dr. Joel Zivot

80. Dr. Joel Zivot is a board-certified anesthesiologist who teaches at the Emory University School of Medicine and serves as Medical Director of the Cardio-Thoracic Intensive Care Unit at Emory University Hospital.

81. Dr. Zivot has reviewed Mr. Bucklew's medical records as well as Missouri's Execution Protocol and related documents. Also, in May 2014, he examined Mr. Bucklew at Potosi Correctional Center, although a full exam could not be conducted because of the inadequate lighting, limited facilities and restrictions imposed by the DOC. (As reflected in footnote 2, *supra*, the examination occurred in the prison cafeteria).

82. Based on his review of Missouri's execution protocol and Mr. Bucklew's medical records, Dr. Zivot opines that a "substantial risk exists that, during [an] execution, Mr. Bucklew will suffer from extreme or excruciating pain as a result of hemorrhaging or abnormal circulation of the lethal drug, leading to a prolonged execution." (Exhibit 1 at ¶ 15; *see also* Exhibit 5 at [sic]).

83. Dr. Zivot identifies unique dangers arising from Mr. Bucklew's partially obstructed airway, including "a very substantial risk that during an execution he could suffocate." (Exhibit 1 at ¶ 15). Dr. Zivot also observes that Mr. Bucklew is prescribed several medications, including medications for pain, and there a "substantial risk he will suffer an adverse event from drug interactions." (Exhibit 1 at ¶ 15). Since Dr. Zivot issued his initial Declaration, the number and dosage of Mr. Bucklew's medications have increased, creating an even greater risk of adverse medication interactions, as discussed further below.

84. Before the lethal drug is even injected, Mr. Bucklew is at risk from the use of methylene blue, which has historically occupied a critical role in Missouri's execution procedures. Methylene blue is part of the saline mixture supposedly used to check the flow in the IV line and to ensure that the lethal drug is properly flowing into the vein rather than simply spreading into the surrounding tissues. Although methylene blue would not pose a risk to most inmates, it poses a unique and grave risk to Mr. Bucklew. Methylene blue is a nitric oxide scavenger and will likely "cause a spike in blood pressure if injected." (Exhibit 1, ¶ 16; Exhibit 5 at ¶¶ 28-29; *see also* Exhibit 3 at ¶¶ 8-9, 20, Declaration of Dr. Larry Sasich).[6]

85. Blood pressure is not monitored during lethal injection. Yet, any spike in blood pressure raises a great risk of hemorrhage for Mr. Bucklew, as the

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[6] Missouri has grown progressively more secretive about its execution procedures, and it is not known whether methylene blue is presently being used by the execution team. The team has historically trained with it, however, and DOC records from 2013 and 2014 show that the DOC maintained a stock of methylene blue and/or indigo carmine for execution purposes.

hemangiomas are a "plexus of blood vessels that are abnormally weak and can easily rupture, even when the blood pressure is normal." (Exhibit 1, ¶ 17).

86. If Mr. Bucklew's "blood pressure spikes after the methylene blue injections, the hemangiomas, now further engorged with blood, are likely to rupture, resulting in significant bleeding in the face, mouth and throat." If blood enters Mr. Bucklew's airway, "*it would likely cause choking and coughing, which Mr. Bucklew will experience as severe pain and suffocation.*" (Ex. 1 ¶ 18) (Emphasis added). The suffocation risk is further heightened by the fact that Mr. Bucklew's airway is severely obstructed, and any further swelling of the hemangiomas or rupturing of the tumors would likely cause Mr. Bucklew to gasp and struggle for air.

87. Mr. Bucklew's vascular malformations also give rise to a great risk that the lethal drug will not circulate as intended. The cavernous hemangiomas create "alternative low-resistance pathways to injected drugs." It is highly likely "that this abnormal circulation will inhibit the effectiveness of the pentobarbital. . . ." (Exhibit 1 at ¶ 19).

88. The "reduced effectiveness of the pentobarbital and the delayed depression of the central nervous system will create a substantial risk of a prolonged and extremely painful execution for Mr. Bucklew." (Exhibit 1 at ¶ 19).

89. All of these risks are further augmented by the fact that Mr. Bucklew takes several medications to manage his medical condition, including narcotic pain medication and several psychiatric medications. This creates a substantial risk of adverse events resulting from drug interactions. (Exhibit 1 at ¶ 22). The risk of

a dangerous drug interaction has increased greatly in the last year, as additional, potent drugs have been prescribed to address Mr. Bucklew's worsening psychiatric problems, including stress-induced psychotic reaction and post-traumatic stress disorder. The need for a thorough evaluation of all of Mr. Bucklew's medications is addressed further below, and will require consultation with experts as well as additional discovery from the Department of Corrections.

90. The lethal drug itself poses additional problems. Pentobarbital is not an analgesic (pain reducer), but is, in fact, an *antalgesic*, that is, it tends to exaggerate or worsen pain. (Exhibit 1 at ¶ 23). Mr. Bucklew's medications may interact with pentobarbital – an antalgesic – in a manner that increases pain, causing a substantial risk that Mr. Bucklew will experience an extremely painful death. (Exhibit 1 at ¶ 24).

91. The risks arising from drug interactions and the antalgesic effects of pentobarbital are further exacerbated by the use of a compounded drug (assuming that Missouri is indeed still using compounded pentobarbital). A compounded drug, unlike a manufactured drug, carries no guarantees of its safety, potency, or purity. (Exhibit 1 at ¶¶ 23-25; Exhibit 3 at ¶¶ 12-20, Declaration of Dr. Larry Sasich).

92. To date, Defendants have accorded little or no attention to the risks that attend the execution of Russell Bucklew, other than proposing hasty, last minute changes to the protocol aimed at rushing Mr. Bucklew into the execution chamber when he faced a May 21, 2014 execution date.

93. Just two weeks before that scheduled date, on May 7, 2014, counsel in the Missouri Attorney General's Office contacted counsel for Mr. Bucklew

and inquired about conducting a venous study of Mr. Bucklew's arms. There was no request to conduct any scans of the engorged and unstable vascular malformations in Mr. Bucklew's head, neck and throat.

94. Indeed, the Department of Corrections has obtained no imaging studies of Mr. Bucklew's cavernous hemangiomas since 2010 when an MRI was performed. The imaging report described Mr. Bucklew's hemangioma as "a large complex right facial mass" and noted that Mr. Bucklew's airway was "severely compromised."

95. In contrast to the indifferent conduct of the Missouri Department of Corrections, counsel for Mr. Bucklew endeavored to obtain a timely examination of Plaintiff in May 2014. Although hindered by a lack of resources and the inability to examine Mr. Bucklew in a properly equipped medical setting, Dr. Zivot was able to conduct at least a limited visual examination and medical interview.

96. Following that examination, on May 12, 2014, Dr. Zivot provided a supplemental affidavit stating additional opinions and observations. (*See* Exhibit 4).

97. Dr. Zivot noted that, during the examination, Mr. Bucklew's blood pressure was elevated, 140/100 on both arms, representing severe hypertension. (Exhibit 4 at ¶ 4). Certainly, an increase in blood pressure was not surprising, given the stress of the then-scheduled execution and Mr. Bucklew's fear and discomfort.

98. Examining the interior of Bucklew's mouth and throat, Dr. Zivot noted a "very large vascular mass" that arises "through the hard palate, extends into the upper maxilla on the right, and fully encompasses the uvula and distorts the anatomy of Mr. Bucklew's airway." (Exhibit 4 at ¶ 4).

99. Mr. Bucklew's airway is "severely compromised or obstructed due to the hemangiomas." The airway "is also friable, meaning it is weak and could tear or rupture. If you touch it, it bleeds." (Exhibit 4 at ¶ 6).

100. Dr. Zivot observed that if Mr. Bucklew were his patient, "managing his airway would be a top priority during any medical procedure" and would require the "highest level of vigilance from a medical team." (Exhibit 4 at ¶ 7). Indeed, the only way to properly perform a medical procedure on Mr. Bucklew would be to perform it in a hospital with a fully equipped surgical suite and the ability to do an emergency tracheostomy if necessary. (Exhibit 4 at ¶ 8).

101. During an execution, Mr. Bucklew will be at "great risk of choking and suffocating because of his partially obstructed airway and complications caused by the hemangiomas." (Exhibit 4 at ¶ 9). At the same time, the use of any tube or other standard airway equipment typically used to maintain an open airway will only create more problems "as the placement of any device in the pharynx will cause instant bleeding" and such bleeding would further constrict the airway and also impair the visibility of it. (Exhibit 4 at ¶ 10).

102. Executions are conducted on a gurney, and the risks arising from Mr. Bucklew's airway are even greater if he is lying flat. (Exhibit 4 at ¶ 11). Because of the hemangiomas, Mr. Bucklew is unable to sleep in a normal recumbent position because the tumors cause greater obstruction in that position. (Exhibit 4 at ¶ 11). "Mr. Bucklew's airway tumors are of a dynamic nature. That is, they worsen when he is recumbent, even when recumbent for only a few moments." (Exhibit 4 at ¶ 11).

103. Dr. Zivot further opines that any increase in Mr. Bucklew's blood pressure, such as from stress, will only further aggravate the vascular tumors and increase the risk of airway obstruction. If any secretions enter the airway or he starts breathing hard – because of stress or any other cause – his airway will become even more constricted. (Exhibit 4 at ¶ 12). This will likely start a "dangerous cycle in which more strenuous attempts to breathe by Mr. Bucklew will only increase the degree of his airway obstruction. . . . [T]he harder he tries to breathe, the less air he will get." (Exhibit 4 at ¶ 12).

104. Any effort to prevent such a gruesome scenario for Mr. Bucklew in any medical setting would require physicians experienced in airway management to be at arm's length proximity to Mr. Bucklew and prepared to perform an emergency tracheostomy. (Exhibit 4 at ¶ 14).

105. Missouri's execution protocol provides no contingency for a failed execution or any situation in which a prisoner starts gasping for air or experiences hemorrhaging. (Exhibit 4 at ¶ 13).

106. Based on Mr. Bucklew's unique and severe condition, there is no way to proceed with Mr. Bucklew's execution under Missouri's lethal injection protocol "without a substantial risk to Mr. Bucklew of suffering grave adverse events during the execution, including hemorrhaging, suffocating or experiencing excruciating pain." Exhibit 4 at ¶ 16).

107. Under any scenario or with any type of lethal drug, execution by lethal injection poses an enormous risk that Mr. Bucklew will suffer extreme, excruciating and prolonged pain – all accompanied by choking and struggling for air.

108. Mr. Bucklew's condition is inoperable and incurable. Indeed, it is steadily progressive and will likely ultimately cause his death. There is no medical procedure that will allow his blood-engorged tumors to be excised or reduced in size. Therefore, any execution of Mr. Bucklew by lethal injection, regardless of the drug used, violates the Eighth Amendment's prohibition on cruel and unusual punishment.

Nature of Mr. Bucklew's Claims: Separate and Distinct from Zink

109. Because Mr. Bucklew's claims concern the specific and unique risks posed to *him* by lethal injection, and those risks exist regardless of the drug used, his claims are entirely separate and distinct from those raised in *Zink v. Lombardi*, Case No. 12-4209.

110. Mr. Bucklew understands that if both cases had not been dismissed, that it might have been efficient to consolidate them for discovery purposes, given the general subject matter and common parties. The *Zink* discovery was limited, however, and no discovery has yet occurred in the *Bucklew* case.[7]

111. When Mr. Bucklew filed his suit on May 9, 2014, the *Zink* case was still pending before this Court and was not finally dismissed as to all claims until May 16, 2014. (Case No. 12-4209). Had this Court wished to consolidate the two cases, it could have done so. Similarly, the two cases could have been consolidated in the Eighth Circuit, and they were not. Moreover, the Eighth Circuit granted relief to Mr. Bucklew while denying relief to the other *Zink* plaintiffs, clearly suggesting that Mr. Bucklew is situated differently than the other prisoners challenging

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[7] [sic]

Missouri's execution procedures. *Zink v. Lombardi*, Case No. 14-2220 (March 6, 2015) (affirming dismissal of case); *Bucklew v. Lombardi*, Case No. 14-2163 (reversing and remanding for further proceedings).

112. Further, as is apparent, entirely different facts and legal theories support Mr. Bucklew's claims as compared with the plaintiffs' claims in *Zink*. None of the *Zink* plaintiffs challenged Missouri's execution protocol based on their unique medical condition. To the contrary, their claims were almost entirely based on the variety of risks posed by the use of compounded pentobarbital. While those risks are not wholly irrelevant to Mr. Bucklew's case, Mr. Bucklew's claims under the Eighth Amendment exist regardless of the particular drug used. The great likelihood that Mr. Bucklew will suffer extreme and tortuous pain during an execution is based on the dangers caused by his abnormal circulatory system, his malformed veins, the blood-engorged tumors that fill his head and throat, and the severe obstruction of his airway. These physical conditions, by themselves and irrespective of the drug used, place Mr. Bucklew at grave risk during an execution by lethal injection.

Mr. Bucklew's Condition Worsening in the Past 12 Months

113. Since Mr. Bucklew filed the present lawsuit in May 2014, his medical condition has significantly worsened, with the blood-filled tumors growing larger and more unstable and causing additional pain, balance problems, impairment to his vision and problems with breathing. Following a recent telephone call with Mr. Bucklew, Dr. Zivot noted that the increasing size of the hemangioma obstructing Mr. Bucklew's airway was causing "stridor" or noisy breathing. (Exhibit 5 at

¶¶ 20-21). Because of the growing obstruction, Mr. Bucklew frequently has difficulty speaking clearly.

114. Mr. Bucklew's medical records from May 2014 to the present refer to increased dizziness, episodes of stumbling and falling, increased facial pain, bleeding from his mouth, and pressure on his right eye from an encroaching hemangioma.

115. Even more pronounced than the physical changes have been the changes in Mr. Bucklew's mental state. His psychiatric condition has markedly deteriorated, and he is presently on an extensive regimen of drugs used to treat psychosis, schizophrenia and bipolar disorder.

116. One of the prison psychiatrists who treated Mr. Bucklew documented an array of alarming psychiatric symptoms that developed in the wake of Mr. Bucklew's near execution in May 2014. Although Mr. Bucklew's previous mental problems primarily involved General Anxiety Disorder, Mr. Bucklew began suffering from flashbacks, nightmares of being injected with poison, and auditory and visual hallucinations. He lost 20 pounds and had episodes of uncontrollable crying.

117. The psychiatrist diagnosed him with "stress-induced psychotic reaction," and prescribed an array of psychiatric drugs, most of which are not typically taken together and many of which pose a risk for adverse drug interactions during an execution.

118. The medications currently prescribed to Mr. Bucklew include Clonazepam (Klonipin), Fluphenazine (Prolixin), Hydroxyzine Pamoate (Vistaril), Mirtazapine (Remeron), Olanzapine (Zyprexa), Perphenazine (Trilafon) and Tramadol. All of the drugs, except for

Tramadol, are psychiatric drugs used to treat mood disorders, psychosis, schizophrenia or bipolar disorder.

119. In a recent psychiatric visit, Mr. Bucklew reported ongoing auditory hallucinations and/or "intrusive thoughts." His psychiatric records contain several references to a potential diagnosis of Post-Traumatic Stress Disorder.

120. Mr. Bucklew's medication regimen gives rise to a number of potentially troubling side effects, including "Serotonin Syndrome," for which he is already at risk, as documented in his medical records. Serotonin Syndrome results from a buildup of high levels of serotonin in the brain and features an array of troubling side effects, including twitching, lethargy, confusion, delirium, agitation, and seizures.

121. Significantly, the use of methylene blue during an execution poses an additional and severe threat to an individual already at risk for Serotonin Syndrome. (*See* Exhibit 5 at ¶¶ 31-35). In 2011, the FDA issued a "Safety Announcement," indicating that except in emergency circumstances, methylene blue should *never* be administered to an individual at risk for Serotonin Syndrome or taking certain psychiatric drugs, including Mirtazapine (Remeron). Mr. Bucklew is presently taking Mirtazapine daily for treatment of one of his severe psychiatric conditions. (*See* Exhibit 5 at ¶¶ 31-35).

122. Any plan to move forward with an execution of Mr. Bucklew must include not only a complete physical examination of him, including imaging studies, but must also include a thorough evaluation of his medications and the potential for adverse interactions during an execution.

Missouri's On-the-Fly Adjustments to Protocol Insufficient

123. In May 2014, as Mr. Bucklew faced an execution date and raised the issues addressed in this lawsuit, the Missouri Department of Corrections hastily attempted some last-minute, ill-considered changes to the execution protocol that would actually have the effect of *increasing* the risk to Mr. Bucklew.

124. The DOC, in response to concerns raised regarding methylene blue, stated it would not use methylene blue, but would instead use indigo carmine. (Documents obtained through a Missouri Sunshine Act request revealed that when the DOC offered this adjustment, it had already been using indigo carmine for four months, with no disclosure to counsel for any of the prisoners). When counsel for Mr. Bucklew pointed out that indigo carmine posed the same (or worse) risks as methylene blue, the DOC stated it would forego the use of *any* dye, even though the execution team (which includes non-medical members) is trained only to carry out executions with the use of a medical dye in the intravenous lines.

125. The use of dye is essential to ensure that the IV line is flowing properly. It also provides a telling visual indicator if the saline infusion is not entering the bloodstream but is in fact dispersing in surrounding tissues, as it did in Oklahoma's botched execution of Mr. Lockett. Absent the use of a dye, the non-medical members of the execution team, who do the actual pushing of the syringes, will have no way of determining whether the saline solution and the lethal drug are entering Mr. Bucklew's bloodstream. Given the risks already posed by Bucklew's vascular malformations and the likelihood the drug will not circulate properly, the increased risk posed by using *no dye* – a

method for which the team has received no training – poses a constitutionally intolerable threat to Mr. Bucklew.

126. The risks to Mr. Bucklew are further increased by the alleged use of a compounded drug, pentobarbital, which, unlike a manufactured drug, carries no guarantees of its safety, potency, or purity. (Exhibit 1 at ¶¶ 23-25; Exhibit 3 at ¶¶ 12-20, Declaration of Dr. Larry Sasich).

127. Because the State of Missouri improperly refuses to provide any information about the safety, purity or provenance of its lethal drug – or even confirm whether or not the drug is tested – Plaintiff is left to draw inferences about the precise nature of the drug being used. Given the seeming ease with which Missouri apparently procures what is alleged to be pentobarbital when other states are stymied in their efforts to obtain a reliable supply of the drug, one may logically infer that perhaps Missouri's drug has been obtained through improper channels, perhaps through a foreign, non-FDA approved source or through a supplier for the sole FDA-approved manufacturer, Akorn, which has distribution controls in place to preclude the sale of the drug to prison systems.[8] (*See* paragraph 25, *supra*). That said, *regardless of the particular drug used,* execution by lethal injection poses a very substantial risk that Mr. Bucklew will suffer a prolonged and tortuous death in violation of the Eighth Amendment.

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[8] The DOC has taken the position that providing an answer to the question of whether or not the pentobarbital is tested would tend to reveal the source of the drug. Plaintiff finds the DOC's position perplexing, as it tends to suggest that the drug may have been obtained in manufactured form from an improper source.

128. In May 2014, the DOC also proposed a second adjustment in its protocol, offering to adjust the gurney so that Mr. Bucklew is not lying completely prone. Although the stated intent was to reduce the choking risk to Mr. Bucklew, the DOC has obtained no imaging studies of Mr. Bucklew since 2010, and therefore has no information on which to base any decisions about the angle of the gurney. As a practical matter, no adjustment would likely be sufficient, as the stress of the execution may unavoidably cause Mr. Bucklew's hemangiomas to rupture, leading to hemorrhaging, bleeding in his throat and through his facial orifices, and coughing and choking on his own blood.

Diagnostic Imaging Studies Essential to Evaluate and Establish Risks

129. In order to fully evaluate and establish the risks to Mr. Bucklew from execution by lethal injection, a full and complete set of imaging studies must be conducted. (*See* Exhibit 5 at ¶¶ 16-17). This is necessary to allow Plaintiff to prove his claims under the Eighth Amendment.

130. Mr. Bucklew's vascular malformations occupy much of the right side of his face and head, extending into his nose, sinuses, jaw, mouth and throat – and, more recently, his right eye. The blood-engorged tumors put constant pressure on Bucklew's face and brain, and may even extend into his brain.

131. To identify the "full extent of the tumor's involvement with Mr. Bucklew's airway and brain, a repeat high resolution CT of Mr. Bucklew's chest, neck, head and brain should be performed." (Exhibit 1 at ¶ 20; Exhibit 5 at ¶ 16). The CT study should be performed with and without contrast to characterize the extent of the anticipated abnormal intracranial

structures. The CT scan is necessary to characterize the location and extent of the tumor and to assess the severe degree of compromise of Mr. Bucklew's airway." (Exhibit 1 at ¶ 20; Exhibit 5 at ¶ 16).

132. If the CT scan does not fully characterize "the extent of the known soft tissue tumors, then an MRI should be performed. In addition, a venogram and ultrasound evaluation should be performed of Mr. Bucklew's upper extremities" to determine venous patency and vascular access locations. (Exhibit 1 at ¶ 21). In addition, an angiogram would also be necessary to further establish the risks to Mr. Bucklew, and would also help determine the degree of vascularity of Mr. Bucklew's hemangiomas. (Exhibit 4 at ¶ 17; Exhibit 5 at ¶ 17).

133. Although there are aspects of the lethal injection protocol that, superficially, appear to draw on medical expertise, lethal injection does not possess any of the safeguards of the practice of medicine and anesthesiology. (Exhibit 1 at ¶ 26).

134. Execution team members either lack the necessary training to safely carry out lethal injection – particularly in the case of someone like Mr. Bucklew who has a complex medical condition – or they are acting explicitly contrary to the dictates of safe medical practice. (Exhibit 1 at ¶ 27).

135. If an execution by lethal injection goes forward, the enormous risks to Mr. Bucklew necessitate monitoring by a qualified physician who is in the execution chamber for the purpose of being able to revive Mr. Bucklew in the event the execution is unsuccessful. The physician would not be a member of the execution team and would have no role or assignment in any way with lethal injection. (Exhibit 1 at ¶ 28).

136. The State of Missouri has no plan for handling an execution that does not proceed as intended. Significantly, there is no equipment or protocol for resuscitating a prisoner who survives an execution.

137. The State of Missouri lacks any kind of back up or contingency plan for unanticipated events during an execution. Contingency plans are especially important given the likelihood of adverse events during an execution of someone like Mr. Bucklew who has a very serious medical condition. The risk of adverse events is furthered heightened by the alleged use of compounded drugs that are not approved or reviewed by the FDA and which are not prepared in an FDA-regulated facility. The risk of contaminants, allergens, and improperly adjusted pH levels is particularly substantial with compounded drugs. These risks are heightened further in Mr. Bucklew's case because of his weak, distended and malformed veins. Yet, the State of Missouri has provided no information whatsoever about its lethal drug and will not even confirm whether the drug is tested for safety, potency or purity.

138. Regardless of the drug used, however, Mr. Bucklew's severe vascular abnormalities, standing alone, create a situation of extreme risk to Mr. Bucklew, as he is highly likely to experience a prolonged, excruciating and tortuous execution.

139. Mr. Bucklew is mindful of the Court's directive to allege a "feasible, readily implemented alternative procedure that will *significantly* reduce a substantial risk of severe pain. . ." (Doc. 52 at 11) (emphasis added). Mr. Bucklew has complied with the Court's order by researching and proposing execution by lethal gas, which is specifically authorized by Missouri law and which Missouri's Attorney General has stated the DOC is prepared to implement. The Missouri Attorney

General has also suggested that the legislature should appropriate funds for the purpose of implementing this alternative form of execution. *See* paragraph 30, *supra*, including cited article from the Associated Press.

140. In the event that an execution by lethal injection proceeds despite the grave risks arising from Mr. Bucklew's condition, the Department of Corrections should not proceed in the absence of a full and proper evaluation of Bucklew's present medical condition. To properly identify and evaluate these unique risks, it is essential that Mr. Bucklew receive a thorough medical examination, including all of the medical imaging studies described above. Absent a physical exam and up-to-date imaging, any attempt to reduce the risks to Mr. Bucklew during lethal injection would be based on nothing more than speculation.

141. Given the complexity of Mr. Bucklew's medical condition, it is essential that the parties be able to obtain expert guidance from qualified professionals. At present, both sides are hampered by their lack of access to qualified medical professionals. Mr. Bucklew has no appointed expert, although Dr. Zivot has worked on the case diligently to this point. Further, the DOC's expert for many years, Dr. Mark Dershwitz, has informed all of the states that he was advising on lethal injection, including Missouri, that he will no longer fulfill that role. Dr. Dershwitz announced his decision to terminate his role in June 2014, indicating that statements made by the State of Ohio in connection with a particular execution could jeopardize his standing with the American Board of Anesthesiology.

142. Obviously, Mr. Bucklew cannot further identify or quantify the risks posed by lethal injection absent additional consultation with an expert who is able to conduct a proper examination of Mr. Bucklew in a fully

equipped medical setting and also obtain up-to-date imaging studies.

143. To obtain access to the necessary medical information and expertise, Mr. Bucklew intends to seek the appointment of Dr. Zivot by this Court. To date, Dr. Zivot has been compensated for only a small portion of his fees, through monies provided by Mr. Bucklew's family. Dr. Zivot's out-of-pocket expenses have been largely covered by counsel.

144. Based on all of the allegations stated here, Mr. Bucklew has fully complied with the requisites of the Court's pleading requirements and the standards set by *Glossip*. Certainly, the stay of execution, issued by the United States Supreme Court on May 21, 2014, also provides a strong basis for inferring that Mr. Bucklew has satisfied the standards for properly pleading an Eighth Amendment claim.

145. Mr. Bucklew's claims, while fully ripe, did not accrue until it was clear that his airway obstruction would likely cause choking and suffocation during any execution. Indeed, the very substantial risk that Mr. Bucklew would suffocate to death during any execution by lethal injection is the core of his Eighth Amendment claim. That claim did not accrue until May 2014, when Dr. Zivot was able to examine Plaintiff's medical records and examine him in person, thereby identifying the grave risk posed by Mr. Bucklew's obstructed and fragile airway. Until May 2014, the Department of Corrections was in sole possession of evidence necessary to raise Mr. Bucklew's Eighth Amendment claim and had the sole ability to procure and obtain necessary diagnostic assessment and medical imaging. Prior to May 2014, when Mr. Bucklew's counsel were able – under the press of an execution date – to persuade Dr. Zivot to undertake Mr. Bucklew's case, Plaintiff

had no ability to assert a viable Eighth Amendment claim and litigate a well-supported motion for stay of execution.

146. Although Mr. Bucklew's counsel sought court funding no less than eight times in six years for the purpose of obtaining an expert opinion on Mr. Bucklew's medical condition, those requests – to the United States District Court, the Eighth Circuit and every level of the Missouri state courts – were repeatedly denied. Because the State of Missouri repeatedly and effectively opposed Mr. Bucklew's efforts to obtain expert funding (in those instances when the requests were filed in open court, rather than *ex parte*), Defendants here should be estopped from arguing that Mr. Bucklew failed to timely assert his claims. Indeed, it is State of Missouri that is largely responsible for Mr. Bucklew's inability, since 2008, to obtain the necessary expert services.

147. By June 2010, the blood-engorged tumor in Mr. Bucklew's throat had grown to a sufficiently large size as to create a severe blockage to Mr. Bucklew's airway. It was in the June 2010 imaging report that Mr. Bucklew's physician reported that the "large complex facial mass" had extended into multiple cavities, severely compromising Mr. Bucklew's airway.

148. Despite the troubling report issued by Mr. Bucklew's physician, the DOC obtained no further diagnostic tests or imaging of Mr. Bucklew's vascular tumors. Since June 2010, the DOC has failed to assess or monitor the growth of Mr. Bucklew's tumors, and medical care has been restricted to the provision of medications intended to treat pain and anxiety.

149. Under these circumstances, when the DOC has had exclusive custody and control over Mr. Bucklew

and exclusively held the ability to obtain appropriate testing, no claim based on Mr. Bucklew's medical condition could accrue. At the earliest, such claim accrued at the point that Mr. Bucklew's counsel were able to obtain, with no promise of payment, the expert services and opinions of Dr. Zivot.

Count I

Claim Against All Defendants Under the Cruel and Unusual Punishment Clause of the Eighth Amendment Based on the Use of Missouri's Lethal Injection Protocol on Mr. Bucklew

Plaintiff realleges the foregoing and further states as follows:

150. Execution by lethal injection poses unique and specific risks to Mr. Bucklew that arise from his lifelong and severe medical condition.

145. Executing Mr. Bucklew by lethal injection will cause extreme and needless suffering to Mr. Bucklew, including but not limited to hemorrhaging during the execution; coughing, choking and suffocating; and suffering a prolonged and excruciating execution because the lethal drug fails in its intended effect or fails to circulate properly in Mr. Bucklew's body.

146. Mr. Bucklew's unique and severe medical condition is further exacerbated by his deteriorating psychiatric condition. He suffers from extreme anxiety and has been diagnosed with stress-induced psychotic reaction disorder. He experiences intrusive thoughts, flashbacks and auditory and visual hallucinations. The stress that he would almost certainly experience during an execution poses an extreme and additional risk to Mr. Bucklew, both because of the psychiatric drugs he takes which give rise to adverse interactions

with methylene blue, and because the stress he experiences is likely to cause a rise in blood pressure, thereby triggering hemorrhaging. Plaintiff knows of no steps that have been taken or will be taken to ameliorate the grave and specific risks attendant to executing Mr. Bucklew by lethal injection.

147. If Missouri proceeds with its execution of Mr. Bucklew, it will be conducting an unregulated experiment on a human subject, as there are no studies that support Defendants' use of Missouri's lethal injection protocol on an individual suffering from vascular malformations and prone to hemorrhaging and choking or suffocating to death.

148. Missouri's lethal injection protocol, *as applied* to Mr. Bucklew, presents a substantial risk of causing excruciating or tortuous pain and inflicting needless suffering.

149. Absent a thorough physical examination and complete imaging studies, it is not possible to further address whether any additional or specific changes or adjustments to the lethal injection protocol would reduce the very substantial risk that Mr. Bucklew will suffer extreme and excruciating pain during an execution by lethal injection.

150. In adherence with the pleading requirements set forth in *Glossip*, and as stated above, Mr. Bucklew specifically alleges lethal gas as a feasible and available alternative method that will significantly reduce the risk of severe pain to Mr. Bucklew.

151. Defendants' intended actions under their lethal injection protocol, as set forth in this Fourth Amended Complaint, will inflict extreme, tortuous and unnecessary pain on Mr. Bucklew and will therefore violate

the Cruel and Unusual Punishments Clause of the Eighth Amendment of the United States Constitution.

Count II

Claim Against All Defendants for Failure to Take Reasonable and Necessary Precautions with Regard to Mr. Bucklew's Execution, thereby Acting with Deliberate Indifference to Plaintiff's Serious Medical Needs in Violation of the Eighth and Fourteenth Amendments of the United States Constitution

Plaintiff realleges the foregoing and further states as follows:

152. Defendants have taken no reasonable and necessary steps to assess the risks to Mr. Bucklew during an execution by lethal injection. They have not conducted a thorough physical examination nor obtained up-to-date imaging studies to determine whether or how Mr. Bucklew may be executed without violating the Eighth Amendment of the United States Constitution.

153. Defendants' failure to take reasonable and necessary steps to assess and monitor Mr. Bucklew's condition constitutes deliberate indifference to Mr. Bucklew's serious medical needs, as Mr. Bucklew has a right to appropriate medical care up to the moment of his death.

154. As long as Mr. Bucklew is a prisoner within the custody and control of Defendants, they have a constitutional obligation to provide for his serious medical needs. Although they have the right to carry out a death sentence, Defendants may only do so consistently with the dictates of the United States Constitution, including the Eighth Amendment.

155. Defendants have not only failed to take reasonable and necessary steps to determine whether or how Mr. Bucklew may be executed within the parameters of the Constitution, they have made no contingency plan in the event the lethal drugs fail to kill Mr. Bucklew. The Missouri protocol is completely silent on such a possibility. There is no equipment or protocol for resuscitation.

156. Instead, Mr. Bucklew, an individual with a largely obstructed airway and distended, malformed vessels, will be alone in the execution chamber, monitored only remotely by medical personnel who are not tasked with providing any assistance in the event of a botched execution.

157. Even if such an eventuality did not previously occur in the State of Missouri, the botched execution of Clayton Lockett in Oklahoma establishes that an execution can go tragically wrong when the lethal drugs either do not properly enter the prisoner's body or fail for some other reason. Despite the Oklahoma failure, an event of nationwide prominence, Defendants have made no changes to their execution protocol to address unforeseen or unintended events.

158. Defendants' failures and omissions constitute deliberate indifference to the serious medical needs of Mr. Bucklew, in violation of the Eighth Amendment.

159. Defendants' actions have caused, and will continue to cause, needless harm and extreme suffering to Mr. Bucklew, who faces undergoing lethal injection in the absence of necessary precautions or any assessment of whether he may be executed by lethal injection without violating the Eighth Amendment's prohibition on cruel and unusual punishment. Defendants' actions therefore violate the Eighth

Amendment of the United States Constitution as well as the Due Process Clause of the Fourteenth Amendment.

Count III

Claim Against All Defendants for Violation of Mr. Bucklew's First Amendment Right to Petition the Government for Redress of Grievances and His Rights to Due Process and Access to the Courts Under the Fourteenth Amendment

Plaintiff realleges the foregoing and further states as follows:

160. Defendants' execution practices and its use of a lethal drug are shrouded in secrecy.

161. Defendants refuse to provide any information whatsoever regarding the purported pharmacist or the pharmacy that prepares the drug, or how or when the drug is prepared, or where or when the active pharmaceutical ingredient is obtained, or whether the pharmacy is registered with or has ever been inspected by the Food and Drug Administration or even whether the drug has been subjected to any testing for safety, potency or purity. Indeed, Defendants refuse to even admit or deny whether the pentobarbital they claim to use is compounded as opposed to manufactured.

162. Defendants' utter failure to provide a single relevant fact about the provenance or safety of the execution drug prevents Mr. Bucklew, an individual whose vessels are abnormally weak and prone to rupture, from petitioning the government for redress of grievances.

163. Absent basic information about the provenance, purity, potency and safety of the drug, any

allegations by Mr. Bucklew about the drug are vulnerable to being labeled "speculation."

164. To effectively petition the government for redress of grievances, as is his right under the First Amendment, and to exercise his right of access to the courts under the Due Process Clause of the Fourteenth Amendment, Mr. Bucklew needs access to information about the safety, purity, potency and origins of the drug. Such information is now completely withheld, as Defendants refuse to even state whether the drug is subjected to any laboratory testing or whether it is compounded at all or whether it is a manufactured drug, which has been obtained through unknown means.

165. Defendants' practice of shrouding the execution drug in extreme secrecy violates Mr. Bucklew's rights under the First and Fourteenth Amendments, causing him to be subjected to experimental and dangerous drug protocols with no ability to effectively challenge the drug protocol in court or to petition any agency of the federal, state or local government for redress.

166. In addition, any requirement that Mr. Bucklew plead with any greater specificity than he already has violates his rights to due process, fundamental fairness and access to the courts. Absent fundamental information about the lethal drug being used or the specifics of Missouri's lethal injection protocol, Mr. Bucklew is unconstitutionally constrained in seeking redress or any further remedies, either from this Court or any other agency of local, state or federal government.

PRAYER FOR RELIEF

WHEREFORE, Mr. Bucklew requests the following relief:

1. That this Court assume jurisdiction of this cause and set this case for a hearing on the merits.

2. That this Court issue a declaratory judgment declaring and enforcing the rights of Plaintiff Bucklew, as alleged above, and further issue a temporary restraining order or preliminary or permanent injunction to enforce Plaintiff's rights under the First, Eighth and Fourteenth Amendments, commanding Defendants to provide necessary information about the provenance, safety, potency and purity of the lethal drug so as to permit Plaintiff to petition for redress of grievances, and, further to permit Plaintiff access to the courts, consistent with the requirements of the Due Process Clause.

3. That this Court issue a declaratory judgment declaring and enforcing Plaintiff's rights under the Eighth Amendment and, further, issue a temporary restraining order or a preliminary or permanent injunction directing Defendants to not carry out any execution by lethal injection on Mr. Bucklew until such time as Plaintiff has conducted discovery, reasonable and necessary medical tests have been performed, and reasonable and necessary steps have been taken to determine whether and how Mr. Bucklew may be executed by lethal injection, or any feasible alternative method, without violating the prohibition on cruel and unusual punishment of the Eighth Amendment.

4. Mr. Bucklew also seeks this Court's order under 42 U.S.C. ¶ 1988 awarding him a reasonable attorneys' fee and costs, and such further relief as this Court deems just and proper.

WHEREFORE, Plaintiff Bucklew prays this Court for its order and judgment as stated above.

Respectfully Submitted,

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DECLARATION OF JOEL B. ZIVOT, M.D.

I, Joel B. Zivot, being of sound mind and lawful age, hereby state under penalty of perjury as follows:

* * *

15. Based on my review of Mr. Bucklew's medical records, it is my opinion that a substantial risk exists that, during the execution, Mr. Bucklew will suffer from extreme or excruciating pain as a result of hemorrhaging or abnormal circulation of the lethal drug, leading to a prolonged execution. Mr. Bucklew also has a partially obstructed airway, which raises a very substantial risk that during an execution he could suffocate. Further, because Mr. Bucklew is prescribed several medications, including medications for pain, there is a substantial risk he will suffer an adverse event from drug interactions

* * *

19. There is also a very substantial risk that, because of Mr. Bucklew's vascular malformation, the lethal drug will not circulate as intended. The presence of cavernous hemangiomas creates alternative low-resistance pathways to injected drugs. It is very likely that this abnormal circulation will inhibit the effectiveness of the pentobarbital, thereby delaying the depression of Mr. Bucklew's central nervous system. The reduced effectiveness of the pentobarbital and the delayed depression of the central nervous system will create a substantial risk of a prolonged and extremely painful execution for Mr. Bucklew.

* * *

DECLARATION

COMES NOW the declarant, Gregory A. Jamroz, and as authorized by 28 U.S.C. § 1746, states and declares under penalty of perjury all as follows:

* * *

13. At the request of counsel and of the man's family, I have examined the medical records of Rusell E. Bucklew, CP-137, a prisoner of the State of Missouri under sentence of death.

14. Since infancy, Mr. Bucklew has had vascular malformations known as cavernous hemangiomas in the head and neck.

15. These vascular malformations have lower vascular resistance than the brain. The brain has many small capillaries and would have a higher vascular resistance. But the vascular malformations are a tangle of arteries and veins that would have low vascular resistance.

16. These abnormalities of the circulatory system are "fed" or supplied with blood by the external carotid artery.

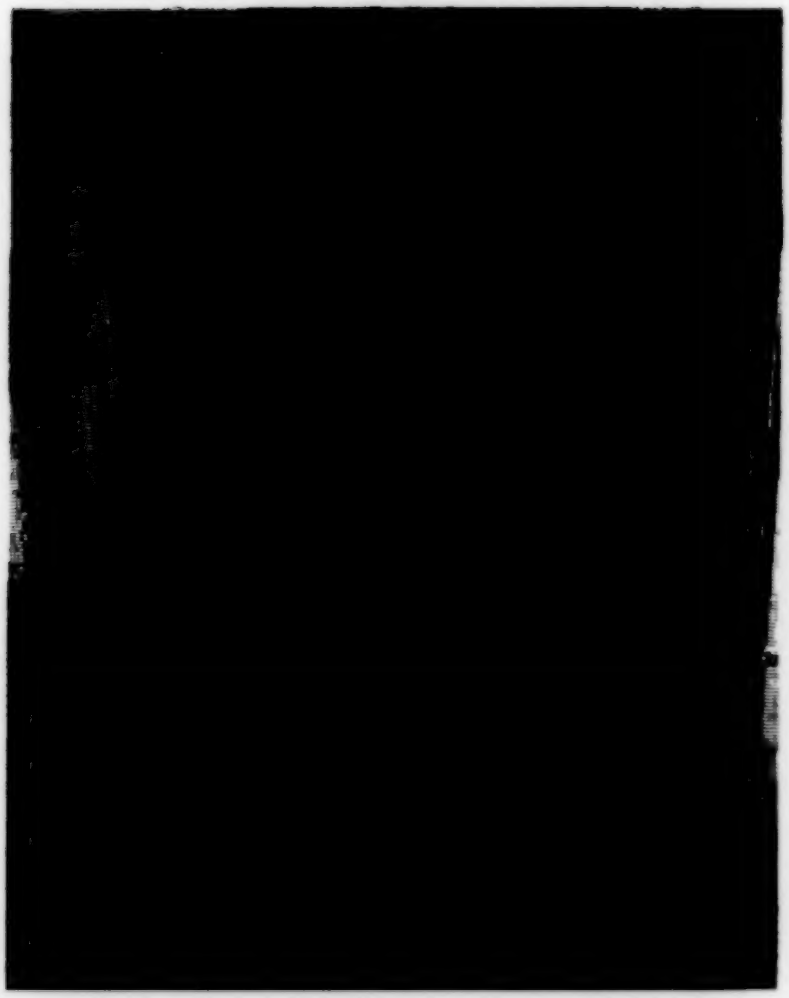
17. The external carotid artery is in turn fed by the common carotid artery.

18. The common carotid artery also feeds the internal carotid artery, which also supplies blood to the brain.

19. When there is marked shunting of the blood to the external carotid artery, the blood from the common carotid artery preferentially goes into the external carotid artery due to the lower vascular resistance of the vascular malformations.

20. In order to determine the precise quantity of shunting in Mr. Bucklew's case, examination of him would be indicated.

* * *



IN THE UNITED STATES DISTRICT COURT FOR
THE WESTERN DISTRICT OF MISSOURI
WESTERN DIVISION

Case No. 14-08000-CV-W-BP

RUSSELL BUCKLEW,

Plaintiff,

v.

GEORGE A. LOMBARDI, *et al.*,

Defendants.

ORDER AND OPINION GRANTING IN PART DEFENDANTS' MOTION TO DISMISS

Pending is Defendants' Motion to Dismiss Plaintiff's Fourth Amended Complaint. Defendants contend all three claims should be dismissed because they fail to state a claim for which relief can be granted, are time-barred, and are barred by claim preclusion principles. For the reasons set forth below, the motion, (Doc. 55), is GRANTED IN PART and Counts II and III are DISMISSED.

I. BACKGROUND

Plaintiff Russell Bucklew ("Bucklew") was convicted in state court of first degree murder, kidnapping, burglary, forcible rape, and armed criminal action. He was sentenced to death for the murder and various terms of years on the other crimes. His convictions and sentences were affirmed on direct appeal. *State v. Bucklew*, 973 S.W.2d 83 (Mo. 1998) (en banc), *cert. denied*, 525 U.S. 1082 (1999). He subsequently sought postconviction relief, but his request was denied.

Bucklew v. State, 38 S.W.3d 395 (Mo.) (en banc), *cert. denied*, 534 U.S. 964 (2001). Plaintiff then sought habeas relief in federal court pursuant to 28 U.S.C. § 2254; this effort was unsuccessful. *Bucklew v. Luebbers*, 436 F.3d 1010 (8th Cir.), *cert. denied*, 549 U.S. 1079 (2006).

In 2012, Bucklew and others filed suit against these same defendants; that suit has been, and in this Order will be, referred to as either "the *Zink* litigation" or simply "*Zink*" because that was the name of the lead plaintiff. For reference sake, *Zink*'s case number was 12-CV-4209-BP.[1] Three counts from *Zink*'s Second Amended Complaint are relevant to this case:

- Count I, which alleged Missouri's lethal injection protocol violated the Eighth Amendment because it utilized drugs obtained from "an undisclosed compounding pharmacy or compounding pharmacist" (*Zink*, Doc. 338, ¶ 401;)
- Count III, which alleged "the delivery of the medication necessary to bring about a rapid death without gratuitous pain and suffering is a serious medical need" and Defendants' use of the protocol constituted deliberate indifference to Plaintiffs' serious medical needs in violation of the Due Process Clause (*Zink*, Doc. 338, ¶¶ 411-15;) and
- Count X, which alleged Defendants' refusal to disclose the identities of health-care professionals, sources for the drugs, and other participants in the execution process denied

[1] "The district court may take judicial notice of public records and may thus consider them on a motion to dismiss." *Stahl v. United States Dep't of Agriculture*, 327 F.3d 697, 700 (8th Cir. 2003).

> Plaintiffs their First Amendment right to petition the government for redress of grievances. (*Zink*, Doc. 338, ¶¶ 475, 479.)

In May 2014, while *Zink* was still pending, Bucklew filed a separate suit of his own. Generally, he alleged that administering the lethal injection protocol to him would violate his Eighth Amendment rights because (1) administering lethal injection to a person in his condition would constitute cruel and unusual punishment and (2) Defendants would be deliberately indifferent to his serious medical needs if they executed him under the current protocol. Bucklew's Complaint also asserted a First Amendment claim. The first two claims focused on the fact that Bucklew suffers from a congenital condition known as cavernous hemangioma, which raises unique issues regarding the efficacy and risks of intravenous drugs used as part of Missouri's lethal injection protocol. Neither Bucklew's Complaint nor the operative pleading in *Zink* alleged a feasible and available alternative that would significantly reduce the risk of severe pain and suffering; for that reason, in May 2014 the Court dismissed both cases. (*Zink*, Doc. 443; *Bucklew*, Doc. 17.)

The Eighth Circuit affirmed the dismissal in *Zink*. *Zink v. Lombardi*, 783 F.3d 1089 (8th Cir.) (en banc), *cert. denied*, 135 S. Ct. 2941 (2015). However, it vacated the dismissal of Bucklew's Complaint and remanded because "the State's concession that it would alter its procedure . . . brought Bucklew's claim at least potentially within the purview of *Baze* [*v. Rees*, 553 U.S. 35 (2008)] and therefore made pre-answer *sua sponte* dismissal of [Bucklew's] complaint inappropriate." *Bucklew v. Lombardi*, 783 F.3d 1120, 1128 (8th Cir. 2015) (en banc). The Court of Appeals also identified two issues that it declined to address because they had

not been addressed by this Court: (1) whether a prior in-camera filing in the Court of Appeals suggested the statute of limitations had expired, *id.* at 1128-29, and (2) whether Bucklew's claim in this case is barred by the preclusive effect of the Eighth Circuit's decision in *Zink*. *Id.* at 1122 n.1.

After the Mandate was issued, Bucklew filed a series of Amended Complaints. The latest – the Fourth Amended Complaint – is the operative pleading, and it contains three counts:

- Count I asserts an Eighth Amendment claim, alleging that executing Bucklew "by lethal injection will cause extreme and needless suffering" due to the effect his medical condition will have on the administration of any lethal injection protocol, which necessarily depends on the circulatory system for proper application of the drugs. (*E.g.*, Doc. 53, ¶¶ 145, 148.)
- Count II asserts another Eighth Amendment claim, contending that Defendants' failure to take necessary steps to assess Bucklew before the execution, and the failure to plan to take necessary steps to assess Bucklew during the execution, both constitute deliberate indifference to Bucklew's serious medical needs. (*E.g.*, Doc. 53, ¶¶ 152-56.)
- Count III alleges Bucklew's First Amendment right to petition the government/courts for redress of grievances has been violated because Defendants "refuse to provide any information whatsoever regarding" the drugs to be used to execute him or the personnel involved in the drugs' preparation. (Doc. 53, ¶ 161-165.)

Defendants have filed a Motion to Dismiss (Doc. 53). They contend that Count I should be dismissed because (1) it fails to plead the existence of a feasible and alternative method of execution that will substantially reduce the risk of pain and suffering, (2) the claim is barred by the statute of limitations, and (3) claim is barred by principles of claim preclusion. Defendants contend Counts II and III should be dismissed because they are also barred by preclusion principles and because they are not legally viable. Bucklew defends Count I by arguing that (1) lethal gas and a firing squad are feasible and available means of execution, (2) the statute of limitations did not accrue until May 2014 when he underwent a physical examination and finally learned the information necessary to advance his as-applied challenge, and (3) his claims are not subject to claim preclusion. Bucklew reiterates these responses with respect to Counts II and III and further contends that these two counts are different from the claims presented in *Zink*, so *Zink*'s rejection of their viability does not foreclose his claims.

II. DISCUSSION

When considering a motion to dismiss under rule 12(b)(6), the Court "must accept as true all of the complaint's factual allegations and view them in the light most favorable to the Plaintiff[ ]." *Stodghill v. Wellston School Dist.*, 512 F.3d 472, 476 (8th Cir. 2008).

> To survive a motion to dismiss, a complaint must contain sufficient factual matter, accepted as true, to state a claim to relief that is plausible on its face. A claim has facial plausibility when the plaintiff pleads factual content that allows the court to draw the reasonable inference that the defendant is liable for the misconduct alleged. The plausibility standard is not akin to a probability

> requirement, but it asks for more than a sheer possibility that a defendant has acted unlawfully. Where a complaint pleads facts that are merely consistent with a defendant's liability, it stops short of the line between possibility and plausibility of entitlement to relief.

Ashcroft v. Iqbal, 556 U.S. 662, 678 (2009). A claim is facially plausible if it allows the reasonable inference that the defendant is liable for the conduct alleged. *E.g., Horras v. American Capital Strategies, Ltd.*, 729 F.3d 798, 801 (8th Cir. 2013). In making this evaluation, the Court is limited to a review of the Fourth Amended Complaint, exhibits attached to the Fourth Amended Complaint, and materials necessarily embraced by the Fourth Amended Complaint. *E.g., Mattes v. ABC Plastics, Inc.*, 323 F.3d 695, 697 n.4 (8th Cir. 2003).

A. Count I – Cruel and Unusual Punishment

1. Adequacy of the Pleadings

In *Glossip v. Gross*, the Supreme Court determined "what a prisoner must establish to succeed on an Eighth Amendment method-of-execution claim." 135 S. Ct. 2726, 2737 (2015). "[D]ecisions in this area have been animated in part by the recognition that because it is settled that capital punishment is constitutional, it necessarily follows that there must be a constitutional means of carrying it out." *Id.* at 2732-33. Moreover, "because some risk of pain is inherent in any method of execution, we have held that the Constitution does not require the avoidance of all risk of pain." *Id.* at 2733. In light of these observations, a prisoner alleging that a particular form of execution is cruel and unusual within the meaning of the Eight Amendment must first establish that the method to be

utilized "presents a risk that is sure or very likely to cause serious illness and needless suffering, and give rise to sufficiently imminent dangers." *Id.* at 2737 (quotations and emphasis deleted). The prisoner must then "identify a known and available alternative method of execution that entails a lesser risk of pain, a requirement of all Eight Amendment method-of-execution claims." *Id.* at 2731. According to *Glossip*, this is not merely a matter of proof: "the Eighth Amendment requires a prisoner to *plead* and *prove* a known and available alternative." *Id.* at 2739 (emphasis supplied).

Defendants do not contend that the Fourth Amended Complaint fails *Glossip*'s first requirement. Instead, they contend it fails to "plead sufficient factual matter, plausible on its face, showing how the State could . . . modify its execution protocol to significantly reduce a substantial risk of severe pain." (Doc. 55, pp. 2-3.) Specifically, they argue that the Fourth Amended Complaint (1) does not actually contend that execution by firing squad is available and (2) presents no reason to believe that execution by lethal gas will significantly reduce the risk of pain and suffering. The Court agrees with Defendants' first contention but disagrees with the second.

(a). Firing Squad

The Fourth Amended Complaint mentions the use of a firing squad only once: in a footnote, Bucklew alleges that "[a] firing squad would similarly [to the use of lethal gas] reduce the risk of severe pain, but it is not authorized under Missouri law." (Doc. 53, p. 2 n.1.) While there can be little dispute that firearms are readily procurable by the State, the footnote actually states that execution by firing squad is not "available" because it is not "authorized," and thus the footnote

explains why Bucklew has chosen not to suggest firing squad as an alternative means of execution. "[A]n inmate ultimately must prove that another execution procedure exists that is feasible and readily implemented, and that the alternative method will significantly reduce a substantial risk of severe pain." *Zink*, 783 F.3d at 1103. While little needs to be said to explain why a firing squad is feasible, the Fourth Amended Complaint does not set forth a factual basis establishing that it can be "readily implemented."[2] To the contrary, the footnote explains why a firing squad cannot be "readily implemented."

Bucklew's response to the Motion to Dismiss expands on the footnote, casting "doubts that Defendants would have much trouble pushing through legislation authorizing the use of a firing squad" and that there is "time to work with the General Assembly to authorize death by firing squad as an alternative method of execution." (Doc. 61, p. 11.) These allegations do not appear in the Fourth Amended Complaint,[3] and the Court cannot consider them. Bucklew's

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[2] The Fourth Amended Complaint also does not allege facts that plausibly explain why a firing squad would significantly reduce the risk of severe pain; it merely states the fact in a conclusory manner. This is insufficient under both *Iqbal* and *Glossip*, but Defendants have not raised the point.

[3] The Fourth Amended Complaint's solitary reference to a firing squad should be contrasted with the number and nature of the allegations about lethal gas. For instance, the Fourth Amended Complaint states that "Mr. Bucklew specifically alleges a 'feasible alternative' method of execution, lethal gas. This alternative method is specifically authorized by Missouri law, and will significantly reduce the risk of severe pain by avoiding the circulation of the lethal agent through Mr. Bucklew's impaired and abnormal vascular system." (Doc. 53, pp. 1-2 (citation omitted).) No mention of a firing squad is made here. Elsewhere, it is alleged that lethal gas "is more likely than any

response raises what could be an interesting question about whether an execution method that is factually available but not legally permitted is "available" under *Glossip*, *Zink*, and *Baze v. Rees*, 553 U.S. 35 (2008), but the Fourth Amended Complaint does not present the issue. At best, it insinuates the potential issue, but insinuation is insufficient. Accordingly, the Court concludes the Fourth Amended Complaint does not allege that the use of a firing squad is "available" within the meaning of *Glossip*, *Baze*, and *Zink*.

(b) Lethal Gas

The Court reaches a different conclusion with respect to Bucklew's allegations about the use of lethal gas as an alternative to lethal injection. Defendants first contend Bucklew has made only a "naked assertion that execution by unspecified lethal gas would significantly reduce a substantial risk of severe pain from execution by lethal injection. . . . And his pleading is itself facially implausible." (Doc. 55, p. 2.) However, reading the Fourth Amended Complaint as a whole, Bucklew alleges that his vascular system has deteriorated to the point that it cannot be relied upon to circulate the drugs used in *any* lethal injection protocol, and that doing so creates a substantial risk of

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other feasible and available alternative method to significantly reduce the risk of severe pain." (Doc. 53, p. 2.) It is here that the footnote mentioning the firing squad is attached, which means the footnote *contrasts* the firing squad from lethal gas based on the fact that it is not authorized by law and, hence, is unavailable. Later still, the Fourth Amended Complaint alleges that "Mr. Bucklew specifically alleges lethal gas as a feasible and available alternative method that will significantly reduce the risk of severe pain to Mr. Bucklew." (Doc. 53, ¶ 150.) Once again, there is no mention of the use of a firing squad, reinforcing the conclusion that the footnote does not proffer a firing squad as an alternative but instead explains why it is not being proffered.

severe pain. (*E.g.*, Doc. 53 pp. 1-2; Doc. 53-1, ¶ 19; Doc. 53-2, ¶ 23; Doc. 53-5, ¶ 11.) Moreover, the use of some of the drugs used in the process will increase Bucklew's blood pressure to the point that it increases the risk of hemorrhaging and corresponding pain. (*E.g.*, Doc. 53, ¶ 84; Doc. 53-3, ¶¶ 8-9; Doc. 53-5, ¶ 11.) Therefore, a method of execution that does not rely on Bucklew's circulatory system will reduce or eliminate this risk. (*E.g.*, Doc. 53, pp. 2-3; Doc. 53, ¶ 29.) The fact that Bucklew has not specified a particular gas to be used is irrelevant because the point of Bucklew's claim is not the chemical/drug being used, but the delivery method and the system of the body being utilized.

Defendants suggest lethal gas presents just as much risk of severe pain, but this argument is premature. The question is whether Bucklew's allegations are plausible, and in resolving this question the Court is limited to a review of the Fourth Amended Complaint. Bucklew has alleged facts that plausibly demonstrate lethal gas will not pose the same risks as lethal injection; Defendants are free to argue that the risk of pain is just as great under both methods, but that is a factual dispute the Court cannot resolve under Rule 12(b)(6).

Defendants also contend Bucklew has not sufficiently alleged "facts showing that lethal gas is a feasible and readily available alternative method of execution." (Doc. 55, p. 3.) However, in addition to alleging that the use of lethal gas is permitted by state law, the Fourth Amended Complaint describes comments by the Missouri Attorney General indicating that the State could use the gas chamber for execution and attaches pictures of the gas chamber. (Doc. 55, ¶ 30.) Read in the light most favorable to Bucklew, the

allegations demonstrate that execution by lethal gas is an available method of execution.

In summary, the issues Defendants raise regarding lethal gas are issues of proof, not pleading. Defendants are free to allege and attempt to prove that lethal gas will not significantly reduce a substantial risk of severe pain, or that the use of lethal gas is not readily available. Presently, however, the only issue before the Court is whether the Fourth Amended Complaint – read in the light most favorable to Bucklew – adequately alleges that lethal gas is a readily available alternative that will significantly reduce a substantial risk of pain. The Court concludes that it does, and for that reason the motion to dismiss must be denied and Defendants will be required to submit an Answer.

2. Statute of Limitations

Defendants contend Count I is barred by the statute of limitations. The Court concludes the procedural posture and Record do not presently allow for resolution of this argument, so Defendants' request to dismiss on this ground is denied and Defendants may assert it as an affirmative defense.

"Bar by a statute of limitation is typically an affirmative defense, which the defendant must plead and prove. A defendant does not render a complaint defective by pleading an affirmative defense, and therefore the possible existence of a statute of limitations defense is not ordinarily a ground for Rule 12(b)(6) dismissal unless the complaint itself establishes the defense." *Jessie v. Potter*, 516 F.3d 709, 713 (8th Cir. 2008) (citations omitted). In evaluating the issue at this early stage, the Court may also consider materials that could ordinarily be considered under

Rule 12(b)(6). *See Noble Sys. Corp. v. Alorica Central, LLC*, 543 F.3d 978, 982-83 (8th Cir. 2008).

The parties agree that the limitation period for Count I is five years. The question then becomes: when did Plaintiff's claim under Count I accrue? "[T]he accrual date of a § 1983 cause of action is a question of federal law that is *not* resolved by reference to state law," and the standard rule is that accrual occurs "when the plaintiff has a complete and present cause of action." *Wallace v. Kato*, 549 U.S. 384, 388 (2007) (quotations omitted). Defendants point to court filings demonstrating Bucklew was aware that he suffered from cavernous hemangioma or that his condition had deteriorated, but his claim did not necessarily accrue at these points in time. The critical question is: when did Bucklew become aware that lethal injection administered to a person in his then-present condition supported a claim that all uses of lethal injection would violate his Eighth Amendment rights?

Defendants first suggest Bucklew's claim accrued in June 2009, when he asked the Missouri Supreme Court to order the Missouri Public Defender System to fund an expert to assist him in presenting an Eighth Amendment claim. Defendants find this action significant because, in their view, it demonstrates Bucklew knew enough then to allege (as he does now) that utilization of any lethal injection procedure violated his Eighth Amendment rights. Defendants point to the Suggestions in Support Bucklew filed with the Missouri Supreme Court, but a significant portion of that document's rationale rests on the particular drugs being utilized and did not generally challenge the use of all lethal injection applications. (Doc. 55-2, pp. 5-6.) Moreover, the factual basis for the information contained in the Fourth Amended Complaint

is derived from medical examinations conducted in 2014. Nothing in the materials filed with the Missouri Supreme Court establishes when Bucklew had the information necessary to allege that all applications of lethal injection to a person with his medical condition presented a serious risk of substantial pain.

Defendants next suggest that Bucklew's claim accrued in early 1999, when direct review of his conviction and sentence were completed. (Doc. 55, p. 7.) The Court rejects this theory, as the Record does not establish that Plaintiff's medical condition in 1999 was such that he *could* assert such a claim. In other words, his claim may have been premature (i.e., not ripe) in 1999. A similar reasoning applies to Defendants' charge that "[t]here is no good reason he could not have brought the claim in 2008, or as part of the *Zink* litigation in which he was a plaintiff in 2009." (Doc. 55, p. 8.) The Fourth Amended Complaint and the court documents Defendants have submitted do not conclusively establish when Bucklew's claim accrued.

Determining the date of accrual is inherently fact-bound, and the necessary facts are not before the Court. The materials the Court is permitted to review under Rule 12(b)(6) do not permit the Court to conclude when Bucklew had the information necessary to present his Eighth Amendment claim that lethal injection, as a method of execution regardless of the drugs utilized, constitutes cruel and unusual punishment when administered to a person in his condition. The materials the Court is permitted to review do not even establish when Bucklew's condition deteriorated to the point that his claim was possible. The Court is thus unable to conclude that he had this information more than five years before he filed this lawsuit. When Defendants file their Answer, they can assert the

statute of limitations as an affirmative defense and discovery will commence on the issue. This will also allow Bucklew an opportunity to garner evidence to support his claim that the statute of limitations should be tolled in light of the State's opposition to his efforts to obtain medical information necessary to present his claim.[4] But, for the present, the request to dismiss the case based on the statute of limitations is denied.

3. Claim Preclusion

Res judicata is also an affirmative defense that must be pleaded, but it can also be resolved on a motion to dismiss if the defense is apparent from the Complaint or if it can be established through the use of public records (such as decisions from other courts). *C.H. Robinson Worldwide, Inc. v. Lobrano*, 695 F.3d 758, 763-64 (8th Cir. 2012). Pointing out that Bucklew was a co-plaintiff in *Zink*, Defendants contend Bucklew's claim is barred by the final judgment in *Zink* because Bucklew could have asserted the same as-applied challenge he presents here in that case. The Eighth

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[4] In this regard, the Court notes that both *Zink* and *Glossip* require a plaintiff in Bucklew's position to plead that the State's chosen method of execution creates a demonstrated and substantial risk of severe pain in light of their medical condition and that an alternative method of execution will significantly reduce that risk. Defendants suggest the mere fact that Bucklew raised any challenges to the use of lethal injection demonstrates that Bucklew knew enough to advance his present claim. Bucklew argues that the State should not be able to deprive a prisoner of the information necessary to plead such allegations while at the same time permitting the State to seek dismissal of the claim because the information is not pleaded or contending the effort to obtain necessary evidence/confirmation means the limitation period has commenced. The novelty of these issues presents an additional reason for the Court to address them on a more complete Record.

Circuit acknowledged this issue arises in an "unusual situation," *Bucklew*, 783 F.3d at 1122 n.1, and Defendants have not adequately addressed the unique issues raised by the differences between the claims raised in *Zink* and this case.[5]

"The preclusive effect of a federal-court judgment is determined by federal common law." *Taylor v. Sturgell*, 553 U.S. 880, 891 (2008). A claim is precluded by a final judgment in another case if "(1) the first suit resulted in a final judgment on the merits; (2) the first suit was based on proper jurisdiction; (3) both suits involve the same parties (or those in privity with them); and (4) both suits are based upon the same claims or causes of action." *Yankton Sioux Tribe v. United States Dep't of Health & Human Servs.*, 533 U.S. 634, 639 (8th Cir. 2008) (quotation omitted). With respect to the fourth component, "'whether a second lawsuit is precluded turns on whether its clams arise out of the same nucleus of operative facts as the prior claim.'" *Magee v. Hamline Univ.*, 775 F.3d 1057, 1059 (8th Cir. 2015) (per curiam) (quoting *Costner v. URS Consultants, Inc.*, 153 F.3d 667, 673 (8th Cir. 1998)). The second lawsuit need not assert the same legal theory: the question is whether the same wrong is to be redressed by both actions. *Costner*, 153 F.3d at 674. Moreover, "'claim preclusion does not apply to claims that did not arise until *after* the first suit was filed . . . .'" *Magee*, 775 F.3d at 1059 (quoting *Baker Grp., L.C. v. Burlington N. Santa Fe Ry. Co.*, 228 F.3d

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[5] The Court also notes that Defendants have relied in part on the dissenting opinions from two Supreme Court cases without advising the Court that they were relying on dissents. (*See* Doc. 55, p. 9 (citing *Elgin v. Department of the Treasury*, 132 S. Ct. 2126, 2147 (2012) (Alito, J., dissenting) and *Magwood v. Patterson*, 561 U.S. 320, 345-46 (2010) (Kennedy, J., dissenting).)

883, 886 (8th Cir. 2000)). As set forth earlier in connection with Defendants' statute of limitations arguments the Record does not conclusively establish when Bucklew's as-applied challenge accrued, so the Court cannot presently determine whether the as-applied challenge is barred by the final judgment in *Zink*.[6]

B. Count II – Deliberate Indifference to Bucklew's Serious Medical Needs[7]

The gravamen of Count II is that Bucklew will experience pain and suffering unless certain changes are made in the lethal injection protocol, and the failure to make these changes constitutes a deliberate indifference to his serious medical needs in violation of the Eighth Amendment. Defendants contend this Court's prior decision in *Zink* – which was affirmed on appeal – forecloses Bucklew's claim. Bucklew insists his present claim is different from the one he presented in *Zink*. The Court agrees with Bucklew that the claim is different in that he presents it as an as-applied claim,

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[6] Bucklew's intimation that Count I is not barred because it was filed before *Zink* was final, (Doc. 61, pp. 26-27), must be rejected. "The general rule is that, as between actions pending at the same time, the first judgment to become final is conclusive in the other action as *res judicata*, even if the first judgment was not final when the second action was filed." *Bucklew*, 783 F.3d at 1122 n.1.

[7] The Suggestions in Support incorporate Defendants' arguments presented in support of their Motion to Dismiss the Third Amended Complaint, and adds little to them. (Doc. 55, p. 2.) Bucklew has followed suit in his Suggestions in Opposition. The Court has thus relied on the parties' arguments advanced in connection with the Motion to Dismiss the Third Amended Complaint.

but also agrees with Defendants that he has failed to state a claim.

Count II contends Defendants have not taken what he characterizes as reasonable and necessary steps to assess and address the risks Bucklew faces in light of his medical condition, (Doc. 53, ¶¶ 152-53), and do not have a contingency plan in the event something goes awry during the execution. (Doc. 53, ¶ 155.) Bucklew alleges these facts "constitute deliberate indifference to [his] serious medical needs, in violation of the Eighth Amendment" and will cause him to suffer "needless harm and extreme suffering . . . ." (Doc. 53, ¶¶ 158-59.) Count II thus challenges the lethal injection protocol, and must satisfy the pleading requirements set forth in *Zink* and *Glossip*. This point is best demonstrated in *Zink*, where the Court of Appeals ruled that the deliberate indifference claim was not legally viable for the same reasons that the cruel and unusual punishment claim had not been stated. *Zink*, 783 F.3d at 1107.

This means that Bucklew must allege sufficient facts to indicate that the staffing and planning procedures Defendants intend to utilize will create a substantial risk of serious harm; that is, Bucklew must "plead more than just a hypothetical possibility that [his] execution *could* go wrong, resulting in severe pain to [him]." *Id.* at 1098-99. Instead, he must allege facts that these aspects of the protocol are "sure or very likely to cause serious illness and needless suffering." *Id.* at 1099 (quotation omitted); *see also Glossip*, 135 S. Ct. at 2737. The Fourth Amended Complaint does not do this; all that is alleged is that the procedures employed are insufficient, but it does not allege what procedures should be employed (other than not performing an execution). Count II simply

states, in a conclusory manner, that the State's procedures violate the Eighth Amendment – but conclusory allegations are insufficient to satisfy the pleading standard.

C. Count III – First Amendment

Defendants contend *Zink* also establishes that Bucklew has failed to state a First Amendment claim. Bucklew again insists his claim is different from the one he presented in *Zink*, but even if he is correct this observation does not change the rationale employed by the Eighth Circuit in holding that a claim of this type is not cognizable.

Bucklew alleges Defendants' refuse to provide him information about "the purported pharmacist or the pharmacy that prepares the drug, or how or when the drug is prepared, or where or when the active pharmaceutical ingredient is obtained, or whether the pharmacy is registered with or has even been inspected by the [FDA] or even whether the drug has been subjected to any testing for safety, potency or purity." (Doc. 53, ¶ 161.) He further alleges that his First Amendment rights are violated if he is not given "access to information about the safety, purity, potency and origins of the drug." (Doc. 53, ¶ 164.) *Zink* involved virtually the same claim. *Zink*, 783 F.3d at 1111 ("The prisoners also argue that they stated a claim that the First Amendment entitles them to information regarding the source of the drug to be used in their executions."). Bucklew suggests his claims are different from those presented in *Zink*; the Court is not convinced,[8] but even if Bucklew is correct

[8] Bucklew contends that "[t]he *Zink* plaintiffs complained of secrecy surrounding the execution team members" while he is complaining about "the secrecy surrounding the compounded

he does not explain why this difference justifies a different outcome, and the Court discerns no reason that it should. There is no need to repeat the Eighth Circuit's rationale: it is enough to note that the Eighth Circuit rejected the claim in *Zink*, 783 F.3d at 1111-13, and the differences in the type of information sought do not distinguish the rationale or justify a different result. *Zink* establishes that Bucklew's First Amendment claim is not cognizable, and for that reason Count III must be dismissed.

III. CONCLUSION

For the reasons stated above, Defendants' Motion to Dismiss, (Doc. 55), is GRANTED IN PART and DENIED IN PART. Counts II and III are dismissed for failure to state a claim. Defendants shall file an Answer to Count I within twenty-eight days of this Order.

IT IS SO ORDERED.

/s/ Beth Phillips
BETH PHILLIPS, JUDGE
UNITED STATES DISTRICT COURT

DATE: January 29, 2016

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drug posed a special risk to him . . . and that such secrecy prevented him from petitioning the government for redress of grievances." (Doc. 50, p. 24.) As outlined in the text, there is at least significant overlap between the First Amendment claim asserted in *Zink* and the First Amendment claim asserted in this case.

IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF MISSOURI
WESTERN DIVISION

Case No. 14-08000-CV-W-BP

RUSSELL BUCKLEW,

Plaintiff,

v.

GEORGE A. LOMBARDI, DAVID DORMIRE, and TROY STEELE,[1]

Defendants.

ORDER REGARDING SCOPE OF DISCOVERY

Plaintiff was convicted in state court of kidnaping, rape and murder, and was sentenced to death. He challenges Missouri's planned method of execution as applied to him, contending that the current lethal injection protocol will cause him needless suffering and pain in violation of the Eighth Amendment. At the Court's direction the parties filed briefs regarding the scope of discovery, and the parties' positions conflict in certain respects.

The Court will confine the scope of discovery to the matters alleged in Count I of the Fourth Amended

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[1] Troy Steele has succeeded Terry Russell as the Warden of the Eastern Reception, Diagnostic, and Correctional Center. Accordingly, Troy Steele is substituted as a Defendant in place of Terry Russell. Fed. R. Civ. P. 25(d). The Clerk of Court is directed to amend the Docket Sheet accordingly.

Complaint. This Order is intended to provide guidance regarding the proper scope of discovery.

I. BACKGROUND

A.

The scope of discovery is informed by the issues involved in the case, so the Court begins by describing Plaintiff's claim and the governing law. Plaintiff's remaining claim is Count I of the Fourth Amended Complaint. (Doc. 53; *see also* Doc. 63 (dismissing Counts II and III of the Fourth Amended Complaint).) As has been described in various orders, Plaintiff suffers from cavernous hemangioma, which is a congenital condition that causes clumps of weak, malformed blood vessels and tumors to grow throughout his body, including his head, face, neck and throat. These tumors are very susceptible to rupture. Plaintiff alleges that execution by lethal injection is likely to cause the tumors to rupture because lethal injection depends on the circulatory system, and that the ruptures can increase his pain and suffering because (1) the chemicals will not travel through his body in the manner intended and (2) ruptured tumors in his throat can cause him to choke. The Fourth Amended Complaint does not allege that changing the lethal injection protocol will alleviate these risks; to the contrary, the allegations broadly relate to any method of lethal injection. The Fourth Amended Complaint alleges that execution by lethal gas will significantly reduce the risk that tumors will rupture and will not cause the needless suffering associated with an execution method that relies on his compromised circulatory system.

In declining to dismiss this claim, the Court held that Plaintiff's allegations satisfied the pleading

requirements set forth in *Glossip v. Gross*, 135 S. Ct. 2726 (2015). There, the Supreme Court described its prior holdings as establishing that a plaintiff must establish "a substantial risk of serious harm, an objectively intolerable risk of harm that prevents prison officials from pleading that they were subjectively blameless for purposes of the Eighth Amendment." 135 S. Ct. at 2737 (quotations omitted). A plaintiff must then "identify an alternative that is feasible, readily implemented, and in fact significantly reduces a substantial risk of severe pain." *Id.* (quotation omitted). *Glossip*'s holding is similar to the Eighth Circuit's prior decision in *Zink v. Lombardi*, where the Court of Appeals held that "to establish a constitutional violation, an inmate ultimately must prove that another execution procedure exists that is feasible and readily implemented, and that the alternative method will significantly reduce a substantial risk of severe pain." 783 F.3d 1089, 1103 (8th Cir.) (en banc), *cert. denied*, 135 S. Ct. 2941 (2015).

B.

Plaintiff has proposed discovery be conducted in six broad categories: the execution protocol, the lethal chemicals utilized, the execution team, alternative methods of execution, DOC policies and procedures, and "Fact and/or Expert Witnesses." Specific topics are set forth within each category. In addition, Plaintiff intends to "depose all medical members of the execution team and the protocol team" as well as all fact and expert witnesses (among others). Plaintiff also indicates he "may request" an opportunity inspect the execution chamber.

Defendants contend that discovery should be conducted in phases. They propose that the first phase be limited to the feasibility of lethal gas as a method of

execution, the likelihood that lethal gas will decrease the risk of pain, and matters related to Defendants' statute of limitations defense. Defendants intimate there would then be an opportunity for them to seek summary judgment, reasoning that if Plaintiff cannot prevail on the issues involved in the first discovery phase there is no need to conduct further discovery. Should Plaintiff demonstrate at least a triable issue that his claim is not time-barred and that lethal gas is feasible and will significantly decrease the risk of pain and suffering, discovery can proceed to the second phase. At that time, discovery regarding Plaintiff's medical condition and the effects of lethal injection can be conducted. Finally, Defendants contend that many subjects described in Plaintiff's discovery plan are unnecessary in light of the issues to be resolved.

II. DISCUSSION

A.

For ease of discussion, the Court first addresses Defendants' proposal to conduct phased discovery. The Court is not persuaded that phased discovery will prove beneficial. In remanding this case, the Eighth Circuit suggested that "[t]he District Court will have the usual authority to control the order of proof, and if there is a failure of proof on the first element that it chooses to consider, it would not be an abuse of discretion to give judgment for defendants without taking further evidence." *Bucklew v. Lombardi*, 783 F.3d 1120, 1128 (8th Cir. 2015) (en banc) (quotation omitted). The Court now has the benefit of the Fourth Amended Complaint, and the issues it presents suggests that parsing out some issues for discovery and reserving others will not be useful. For instance, Defendants suggest that Phase 1 include discovery

related to the likelihood that lethal gas will significantly reduce the risk of unnecessary pain and injury to Plaintiff. However, determining the extent to which lethal gas will reduce that risk requires consideration of the effect of lethal gas on Plaintiff given his medical condition – and Defendants suggest that discovery about Plaintiff's condition be postponed until Phase 2. Similarly, determining whether any reduction in pain and suffering is "significant" – a matter Defendants propose for Phase 1 – requires a comparison to the pain and suffering that is likely to occur through the use of lethal injection, but Defendants propose that discovery on this issue also be postponed until Phase 2.

The Court further believes that phased discovery may result in duplication of effort and prolong the ultimate resolution. For instance, if discovery occurs in phases, witnesses may have to be deposed twice: first to discuss lethal gas, then again to discuss lethal injection. Defendants' proposal also raises the potential of multiple "rounds" of dispositive motions, one after each phase of discovery. Finally, discovery is currently scheduled to close by the end of this year, and dispositive motions are to be filed by the end of January 2017. (Doc. 79, ¶¶ 5, 7.) Even if these deadlines are extended for some reason, the Court doubts that phased discovery would expedite the ultimate resolution of this case, particularly given that the scope of discovery will not be as broad as Plaintiff contemplates. (*See* Part II.B, *infra*.) For these reasons, the Court is disinclined to require that discovery be conducted in phases.

B.

The scope of discovery is limited to nonprivileged matters[2] that are "relevant to any party's claim or defense and proportional to the needs of the case, considering" a variety of factors. Fed. R. Civ. P. 26(b)(1). In light of Plaintiff's proposal, the most problematic factors are "the importance of the issues at stake in the action [and] the importance of the discovery in resolving the issues," *id.*, because these considerations demonstrate Plaintiff's planned scope for discovery is overly broad.

As noted earlier, Plaintiff has proposed discovery be conducted in six broad categories, with each category containing specific topics. The Court's discussion is organized around these six categories.

1. Execution Protocol – Plaintiff anticipates requesting documents relating to the development and adoption of the current protocol, research regarding the chemicals to be used, the effects of those chemicals on the human body, documents concerning alternative lethal injection protocols that were researched or considered, and "documents concerning the complete execution protocol, including all phases of the execution, from the arrival of the team at the facility to the documentation and disposal of the lethal chemicals." (Doc. 100, p. 7.) Some of this information is relevant to the issues in the case. For instance, Plaintiff is entitled to discover the execution protocol that Defendants intend to employ, including the chemicals to be used and the

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[2] The Court does not offer an opinion regarding Defendants' claim of privilege because, as Defendants concede, "[p]rivilege analysis is beyond the scope of" the parties' briefing, (Doc. 102, pp. 6), and because the issue is best addressed in the context of a specific discovery request.

manner in which the chemicals will be administered. Plaintiff is also entitled to obtain any information Defendants may have regarding the chemicals' effects on the human body. However, information relating to "the documentation and disposal of the lethal chemicals" is not related to Plaintiff's claims. Similarly, information related to other methods of lethal injection that might have been considered by DOC is not relevant because Plaintiff does not claim use of different chemicals is a viable alternative: not only is this revealed by the Fourth Amended Complaint, but he admits that he "has alleged that any execution by lethal injection poses unacceptable and unconstitutional risks to him . . . ." (Doc. 100, p. 6.) Finally, "documents about the development and adoption of the current lethal injection protocol, including each protocol developed since 2013 and all amendments and changes," (Doc. 100, p. 7), are not relevant to any issues in the case. The current protocol is relevant, but prior protocols and the evolution of the process over time are not relevant.

Plaintiff justifies discovery about alternative chemicals and further details about the process to guard against Defendants contending that lethal injection is the only available and viable method of execution. In that event, Plaintiff wishes to conduct broad discovery to "seek[ ] ways that changes or alterations not previously known or contemplated might significantly reduce the risks to Mr. Bucklew and, hence, achieve compliance with the Constitution." (Doc. 100, p. 6.) However, the only alternative method Plaintiff has pleaded is execution by lethal gas – he has not alleged that changes to the lethal injection protocol or the use of different chemicals will "achieve compliance with the Constitution." To the contrary, he has disclaimed

the possibility that any utilization of lethal injection will reduce the risk of pain and suffering.

The Fourth Amended Complaint does not justify wide-ranging scrutiny into matters unrelated to his claims.[3] This conclusion is not only supported by Rule 26 generally, but by the pleading requirements set forth in *Glossip* and *Zink*. As the Eighth Circuit explained, "[t]he existence of . . . an alternative method of execution . . . is a necessary element of an Eighth Amendment claim, and this element – like any element of a claim – must be pleaded adequately." *Zink*, 783 F.3d at 1103. Moreover, a general allegation "that other methods would be constitutional, devoid of further factual enhancement, fails to state a claim under the Eighth Amendment." *Id*. Here, Plaintiff has not even made a general allegation that changes to the lethal injection process would be constitutional – he has instead denied that any changes can be made. Thus, he has not presented an Eighth Amendment challenge that justifies exploring intricate details of the lethal injection protocol in order to determine if changes can be made.

2. *Lethal Chemicals* – Plaintiff seeks a list of the chemicals utilized by the State to execute inmates, and the Court agrees Plaintiff is entitled to discover the chemicals that the State intends to use. Plaintiff is also entitled to obtain packaging, labeling, and other inserts to the extent that they describe the chemicals' contents or their effects on the human body (including

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[3] Plaintiff also points to the Court's prior observation that "'if discovery reveals the availability or feasibility of a different, as-yet unpleaded method, there are procedures to deal with such an eventuality.'" (Doc. 107, p. 3 (quoting Doc. 52, p. 10).) The Court did not intend this statement to permit Plaintiff to conduct discovery beyond the bounds set by the pleadings.

warnings), although the name of the manufacturer or provider can be redacted.

Plaintiff would seek documents relating to the purchase, procurement, prescriptions, attempts to obtain chemicals, the DOC's inventory and expiration dates, and the method of maintaining, storing and securing lethal chemicals. None of this information is relevant to Plaintiff's claim.

3. Execution and Protocol Teams (Medical and Non Medical) – This category seeks information about the individuals who will participate in or conduct the execution. Plaintiff explains that "given the severity of his medical condition, the training and qualifications of the execution team members are especially important, as the risks of a botched or excruciating execution are particularly great in his case." (Doc. 100, p. 6.) However, his remaining claim does not allege that changing the execution team members will significantly decrease the risk of pain and suffering, so the relevance of this information is not evident. This information might have been relevant to Count II,[4] but Count II was dismissed. The Court holds that detailed discovery about the execution team members is unnecessary to resolving the issues in this case. Plaintiff may obtain, as part of the discovery regarding the execution protocol, information generally describing the composition of the team (*e.g.*, the number of doctors, nurses, anesthesiologists) as well as the functions they will perform. Finally, in light of the lack of a

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[4] Count II alleged, among other things, that executing Plaintiff would violate the Constitution because there was "no contingency plan in the event the lethal drugs fail to kill Mr. Bucklew" and there was no training of personnel or contingency plans in place to address the possibility of a "botched execution." (Doc. 53, ¶¶ 155-57.)

relationship between the execution team members and the specifics of Plaintiff's claim, the Court discerns no need for Plaintiff to learn the identities of, or depose, the execution team members.

4. Alternative Methods of Execution – Within this category Plaintiff seeks documents regarding alternative methods of execution and further specifies that the scope of this category includes, but is not limited to, lethal gas. Information related to lethal gas is clearly relevant because Plaintiff has alleged that lethal gas is a viable and available alternative and a basis for believing that lethal gas will significantly decrease the risk of pain and suffering. However, it is the only alternative method he has alleged, so it is the only method for which discovery is justified and the breadth of this category must be limited accordingly.

5. DOC Policies and Procedures – The topics in this category relate to DOC policies for obtaining or using lethal chemicals, as well as documents relating to the training of execution team members. To the extent that "prescribing, administering, or using" lethal chemicals relates to the protocol, this information has been addressed in the context of other categories. The remaining respects are beyond the proper scope of discovery for this case. Plaintiff's claim does not depend upon how or from where the chemicals are procured, nor does it depend on the execution team's training. Therefore, discovery into these issues is unnecessary.

6. Fact and/or Expert Witnesses – This category seeks findings and conclusions from fact and expert witnesses, and other information that must be disclosed pursuant to Rule 26(a)(2). Obviously, the parties must comply with Rule 26(a)(2). It is not clear

what else this category encompasses, so the Court cannot comment further.

III. CONCLUSION

For the reasons set forth above, the Court denies Defendants' request that discovery be conducted in phases. Moreover, the scope of discovery shall be limited to the claim and theory advanced in Count I of the Fourth Amended Complaint, as set forth more fully in Part II.B of this Order.

IT IS SO ORDERED.

/s/ Beth Phillips
BETH PHILLIPS, JUDGE
UNITED STATES DISTRICT COURT

DATE: August 11, 2016

IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF MISSOURI

Civil Action No. 4:14-CV-8000-BP

RUSSELL BUCKLEW,

Plaintiff,

vs.

GEORGE LOMBARDI, *et al.*,

Defendants.

Hon. Beth Phillips

PLAINTIFF'S MOTION FOR LEAVE TO FILE *EX PARTE* AND UNDER SEAL AN EXHIBIT IN SUPPORT OF PLAINTIFF'S REPLY BRIEF IN SUPPORT OF HIS MOTION TO COMPEL DISCOVERY

Plaintiff Russell Bucklew, by and through counsel Cheryl A. Pilate, hereby moves to file *ex parte* and under seal an exhibit in support of his Reply Brief in Support of His Motion to Compel Discovery. The exhibit contains excerpts from the depositions of the execution team's doctor, M3, that were taken during the litigation of *Ringo et al. v. Lombardi, et al.*, Case No. Case No. [sic] 09-4095-BP and *Zink et al. v. Lombardi, et al.*, Case No. 12-4209-BP.

Mr. Bucklew seeks to file the present exhibit under seal because the depositions of M3 were designated "confidential" under the terms of the protective orders entered in *Ringo*, Case No. 09-4095 (Doc. 112) and

Zink, Case No. 12-4209 (Doc. 112). Although undersigned counsel Cheryl Pilate was counsel in those cases, her present co-counsel from Sidley firm were not. Therefore, this motion seeks leave to file the exhibit containing the M3 deposition excerpts under seal and *ex parte*, but *ex parte* as to the Sidley counsel *only*. Although the exhibit cannot presently be served on Ms. Pilate's co-counsel, it may be served on Defendants' counsel in the Attorney General's office, who already have copies of all three of M3's depositions.

In further support of the present Motion, Plaintiff states:

1. Russell Bucklew was one of the plaintiffs in *Ringo*, and counsel Cheryl Pilate represented him that action. On September 24, 2010, Ms. Pilate deposed M3 via teleconference, an arrangement chosen to protect M3's identity. The transcript from that deposition was subsequently submitted to this Court, under seal, as Exhibit 5 to Doc. 211, Suggestions in Support of Plaintiffs' Motion for Summary Judgment. *See Ringo et al. v. Lombardi et al.*, Case No. 09-4095 (January 21, 2011).

2. Ms. Pilate also represented Mr. Bucklew in the multi-plaintiff *Zink* case. On July 11, 2013, and on January 16, 2014, Ms. Pilate's co-counsel in *Zink* deposed M3, also via teleconference.

3. Undersigned counsel believes that portions of all three depositions of M3 are highly relevant to the present litigation. For the purpose of permitting the Court to readily review some of the relevant portions, counsel seeks to submit, under seal, a proffer of a representative sample of the deposition excerpts. This

exhibit would be served on opposing counsel, but *not* on Ms. Pilate's co-counsel at the Sidley firm.

4. This Motion for leave to file under seal and the procedures suggested above comply with the protective orders entered in *Ringo* and *Zink* while allowing Plaintiff to submit material relevant to this Court's determination of Plaintiff's Motion to Compel Discovery. The proposed sealed proffer of M3's deposition testimony is referenced in footnote 1 in Plaintiff's Reply Brief in Support of His Motion to Compel. The reference is necessarily general, however, as the Sidley co-counsel have not had access to any of M3's depositions.

5. Undersigned counsel contacted Defendants' counsel to obtain their position as to this Motion, and defense counsel indicated they were opposed to the filing of the deposition excerpts even under seal.

WHEREFORE, for the foregoing reasons, Plaintiff respectfully requests that this Court grant him leave to file attached proposed exhibit under seal, in support of his Reply Brief in Support of His Motion to Compel Discovery.

Plaintiff respectfully requests such other, further relief this Court deems appropriate.

Dated: April 5, 2017

Respectfully Submitted,

By: *Cheryl A. Pilate*

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Counsel for Plaintiff Russell Bucklew

PROPOSED SEALED EXHIBIT

(Fully redacted)

From: ecfMOW.notification@mow.uscourts.gov

To: cmecf_atynotifications@mow.uscourts.gov

Subject: Activity in Case 4:14-cv-08000-BP Bucklew v. Lombardi, et al Order on Motion to Seal Document

Date: Thursday, April 06, 2017 9:39:43 AM

U.S. District Court
Western District of Missouri

Notice of Electronic Filing

The following transaction was entered on 4/6/2017 at 9:39 AM CDT and filed on 4/6/2017

Case Name: Bucklew v. Lombardi, et al

Case Number: 4:14-cv-08000-BP

Filer:

Document Number: 180(No document attached)

Docket Text:

ORDER denying [178] motion to file document under seal. The Court will review Plaintiff's Motion to Compel and will contact the parties if it believes that a review of M3's deposition is necessary to resolve issues raised in that motion. In the meantime, M3's deposition should not be filed in this case. Signed on 4/6/2017 by District Judge Beth Phillips. This is a TEXT ONLY ENTRY. No document is attached. (Wolfe, Steve)

[1] IN THE UNITED STATES DISTRICT COURT
WESTERN DISTRICT OF MISSOURI

CASE NUMBER: 4:14-CV-8000-BP

RUSSELL BUCKLEW,

Plaintiff,

vs.

GEORGE A. LOMBARDI, DAVID A. DORMIRE,
And TERRY RUSSELL,

Defendants.

DEPOSITION OF
DR. JOEL B. ZIVOT, MD, FRCP

MARCH 8, 2017

SCHEDULED AT 12:30 P.M. (E.S.T)

* * *

[6] Whereupon,

DR. JOEL B. ZIVOT, MD, FRCP
being duly sworn, was examined
and testified as follows:

EXAMINATION

BY MR. SPILLANE:

Q. Dr. Zivot, I'm Mike Spillane, from the Missouri Attorney General's office. I wanted to start out by talking about this list of exhibits we have in front of you. And I wanted to go through real quickly and have you identify them. I think everything here is something you'll be familiar with. The first thing I have is

Exhibit 1, which is the Missouri Execution Protocol. I assume you're familiar with that.

(Exhibit Number 1 was identified for the record.)

THE WITNESS: Oh, right. This – this is –

BY MR. SPILLANE:

[7] Q. That's the exhibit list, and then the first one –

A. I see.

Q. – is the Missouri –

A. (Reviewing). Yes.

Q. Right. And then the second one is your Supplemental Report, which I assume you're familiar with.

(Exhibit Number 2 was identified for the record.)

THE WITNESS: Yes.

BY MR. SPILLANE:

Q. And the third one is a group that I've stapled together of three Affidavits that you gave in this case. And I assume you're familiar with those.

(Exhibit Number 3 was identified for the record.)

THE WITNESS: (Reviewing). Yes.

BY MR. SPILLANE:

Q. Okay. Fourth thing is Dr. Antognini's Supplemental Report.

(Exhibit Number 4 was identified for the record.)

THE WITNESS: I – I'm skimming these, obviously. So if you want me to –

BY MR. SPILLANE:

[8] Q. Right. Yeah, yeah. I mean, you – I'm just asking if you've – if you've read Dr. – and I'll represent to you that it's Dr. Antognini's report and you're familiar with his report.

A. Yes.

Q. And then that was the supplemental. The second one is his original report, which is Exhibit 5, and I assume you have read that and are familiar with it, if that is his report.

(Exhibit Number 5 was identified for the record.)

THE WITNESS: (Reviewing). Yes.

BY MR. SPILLANE:

Q. Okay. Next thing is an article you authored. I have it labeled as Exhibit 6. It's in USA Today, and it's titled "Why I'm for a Moratorium on Lethal Injections." I assume you remember writing that and are familiar with it.

(Exhibit Number 6 was identified for the record.)

THE WITNESS: Yes.

BY MR. SPILLANE:

Q. Okay. The next one is a piece you did for CNN, Exhibit 7, titled "Lethal Injection Explained." I assume you're familiar with that.

[9] (Exhibit Number 7 was identified for the record.)

THE WITNESS: Yes.

BY MR. SPILLANE:

Q. All right. The next one is another article you authored for Time, and it's Exhibit 8, and it's "The

Slippery Slope From Medicine to Lethal Injection." I assume you're familiar with that.

(Exhibit Number 8 was identified for the record.)

THE WITNESS: Yes.

BY MR. SPILLANE:

Q. Okay. The next one is an article that you wrote in the University of Richmond Law Review, called "Lethal Injection: States Medicalize Execution", Exhibit 9. I assume you wrote that and are familiar with it.

(Exhibit Number 9 was identified for the record.)

THE WITNESS: Yes.

BY MR. SPILLANE:

Q. The next one is an article you wrote in Philosophy, Ethics and Humanities in Medicine, I've labeled Exhibit 10, and it's titled "The Absence of Cruelty is Not the Presence of Humanness, Physicians and the Death Penalty in the United States." I assume you're [10] familiar with that.

(Exhibit Number 10 was identified for the record.)

THE WITNESS: Yes.

BY MR. SPILLANE:

Q. Okay. The next one is an article which you authored in the Fordham Law Review. It is – I've labeled it Exhibit 11, and it specifically discusses Mr. Bucklew's case to a certain extent, and it's called "Too Sick to be Executed: Shocking Punishment and the Brain."

(Exhibit Number 11 was identified for the record.)

THE WITNESS: Yes.

BY MR. SPILLANE:

Q. Are you familiar with that?

A. Yes.

Q. The next article I have is Exhibit 12. It's written in a document – i [sic] a publication called Medpage Today, Public Health and Policy, and it's called "The White Coat: A Veil for State Killing?"

And I assume that you're familiar with that as you are the author of that article.

(Exhibit Number 12 was identified for the record.)

THE WITNESS: Yes.

[11] BY MR. SPILLANE:

Q. Okay. The next one is an interview, I believe you gave, in the New York Times. And it is Exhibit 13, and it is called "Timeline Describes Frantic Scene at Oklahoma Execution." And I assume you recall giving that interview and are familiar with its contents.

(Exhibit Number 13 was identified for the record.)

THE WITNESS: Yes.

BY MR. SPILLANE:

Q. Okay. The next one is another interview that you gave for the Washington Post, and it's called "Florida's Gruesome Execution Theater." And I assume you're familiar with that and recall giving the interview.

(Exhibit Number 14 was identified for the record.)

THE WITNESS: Yes.

BY MR. SPILLANE:

Q. Okay. The next one is an interview you gave for a publication. I believe it's called Crime. It's listed as Exhibit 15, and it says – it's titled "Oklahoma Wants to Reinstate the Gas Chamber, and Experts Say it's a Bad Idea."

(Exhibit Number 15 was identified [12] for the record.)

THE WITNESS: I don't – I don't recall this.

BY MR. SPILLANE:

Q. Well, let me see if I can refresh your recollection.

A. I see – I see my name here, but I don't recall this publication. So I don't know.

Q. Right. You're – the – the quotation that you supposedly gave was on page 2 of 6, and you talk about nitrogen hypoxia. Does that refresh your recollection?

A. I see that, yes.

Q. Okay. Do you remember giving that interview now, about nitrogen hypoxia, or speaking about it?

A. I do.

Q. Okay.

A. I just don't recognize the name of this publication.

Q. Right. Kind of an odd name. Crime.

A. Yeah.

Q. Oh, you know what, I'm absolutely wrong. The publication is the Huffington Post, and Crime is part of the title, I guess. The Crime section of Huffington [13] Post.

A. I see.

Q. So I apologize. So now does that refresh your recollection?

A. Yes.

Q. Okay. The next thing I have is – again, it's a Time interview, and it's called "The Harsh Reality Of Execution by Firing Squad," and you gave a little interview for that. And I don't know if you recall that.

(Exhibit Number 16 was identified for the record.)

THE WITNESS: Yes.

BY MR. SPILLANE:

Q. Okay. Seventeen is an opinion of the Florida Supreme Court, in a case called Gissendaner – I'm sorry, of the United States Court of Appeals for the Eleventh Circuit, in a case called Gissendaner versus Commissioner. And I believe you gave evidence in that case.

Do you recall giving evidence in that case and the Supreme Court opinion? Excuse me, the Eleventh Circuit opinion.

(Exhibit Number 17 was identified for the record.)

THE WITNESS: I don't – I – I recall the [14] case. I would have to, you know, look to familiarize myself again but, yes, I recall the case.

BY MR. SPILLANE:

Q. The next document I have is Exhibit 18, and it is an Affidavit which you gave in the Gissendaner case. Do you recall giving that now, the Affidavit –

A. Yes.

Q. – and the contents of it?

(Exhibit Number 18 was identified for the record.)

BY MR. SPILLANE:

Q. The next is Exhibit 19, which is a Florida Supreme Court opinion in a case called Davis v. Florida.

A. Uh-huh (affirmative).

(Exhibit Number 19 was identified for the record.)

BY MR. SPILLANE:

Q. Do you recall participating in that case?

A. Yes.

Q. Okay. And then the next thing after that is Exhibit 20, which is an order of the Circuit Court denying the stay of execution – well, I guess it's what they call the Circuit Court. The trial level court in Florida, denying the stay of execution in the Davis case.

[15] (Exhibit Number 20 was identified for the record.)

BY MR. SPILLANE:

Q. Do you recall that?

A. Yes.

Q. Okay. Exhibit 21 is your testimony that you gave in the Davis case, and I believe your testimony actually starts at page 19 of the transcript I've handed you.

(Exhibit Number 21 was identified for the record.)

THE WITNESS: (Reviewing). Yes, I see that.

BY MR. SPILLANE:

Q. Yeah. And you recall giving that testimony?

A. Yes.

Q. Okay. The next thing I have is a Florida Supreme Court Decision in a case called Henry v. State of Florida, in which you gave evidence. Do you recall that case?

(Exhibit Number 22 was identified for the record.)

THE WITNESS: Yes.

BY MR. SPILLANE:

[16] Q. All right. And do you recall this decision at all?

A. Not specifically.

Q. Okay. The next thing I have is Exhibit 23. And if you – it is a pleading that was filed by Mr. Henry in the State of Florida. And if we flip to the back of it, attached to it is an Affidavit that you gave in the case. Do you recall that Affidavit I'm looking at? I think it's farther back.

(Exhibit Number 23 was identified for the record.)

THE WITNESS: Yes.

BY MR. SPILLANE:

Q. Okay. Now I'm going to ask you something specifically about your report. When you listed the interviews and such that you did in your report, which is Exhibit 2, you referred to an interview that you gave with Dahlia Lithwick, which was a podcast for something called Slate. Do you recall doing that?

A. Yes.

Q. Okay. I have in my notes that at page two – at two minutes and thirty seconds into that podcast, you

said that the Constitution does not ask for a punishment to be humane, but it does ask that punishment not be needlessly cruel. Is that accurate?

[17] A. I don't have a copy of the transcript, so I –

Q. Is that consistent with your views?

A. Say it again.

Q. What you said was the Constitution does not ask for the punishment to be humane. It does ask that the punishment not be needlessly cruel. Is that consistent with your views?

A. Yes.

Q. Okay. I have at page – excuse me, twelve minutes and twelve seconds into that, you said, lethal injection can never meet the requirement for not needlessly cruel. You didn't say being – actually – I didn't misread it. It actually says lethal injection can never meet the punishment for – meet the requirement for not needlessly cruel. Do you remember saying that?

A. Perhaps.

Q. Is it consistent with your views?

A. Yes.

Q. Explain, please. Explain why lethal injection can never meet the requirement for not being needlessly cruel.

A. Lethal injection, as I've seen it practiced, or have – having reviewed protocols, imagines that the chemicals that are employed can produce death in [18] a way that the chemicals are not able to do.

Q. Okay. Let me refer you to Exhibit 8, which was an article you wrote, on page 2, and it's The Slippery

Slope From Medicine to Lethal Injection article. And it's page 2 of that. And I'm looking at the paragraph that says:

(Reading:) Lethal injection is merely an impersonation of medicine, nothing more. It wastes scarce drugs that could serve dozens of patients in medical need. When I study the details of lethal injection – of the lethal injection protocol, my medical knowledge feels more like a curse as I see mistakes that lead to unnecessary cruelty (end of reading).

Is that consistent with your view?

A. Yes.

Q. And I'm going to skip down to the next paragraph where you wrote: (Reading:) Lethal injection was never anything other than a facade for punishment, never not needlessly cruel (end of reading).

Is that consistent with your views?

A. Yes.

Q. All right. Also, and I – I don't know if you recall this, but I'll simply step out of order here a little bit. In your testimony in the Davis case, you refer to yourself as a vocal advocate against lethal [19] injection. Is that accurate? I mean, are you a vocal advocate against lethal injection?

A. I'm not sure what you mean when you define a vocal advocate.

Q. I don't know. I'll come back to – I – I've got the quote here and when I get to it, I'll probably ask you what you meant then.

A. Okay.

Q. I would refer you now to Article – excuse me, to Exhibit 6. It's an article you wrote titled Why I'm for a Moratorium on Lethal Injections. One of the first things I saw there is you were talking about when you first witnessed an anesthetic, sodium thiopental, being used. And you described that it raced into a vein and in a moment rendered the patient unconscious. Is that accurate?

A. This article was written, you know, for a newspaper audience. And so if you're asking me to define what a moment means as a specific amount of time in seconds, then I think maybe that's what we have to discuss.

Q. Well, tell me what you meant.

A. That in a – in a short period of time. So, I don't know, I think a moment was just meant to mean relatively quickly.

[20] Q. All right. Let me ask you something else you wrote. You wrote that your right to use thiopental was earned through thousands of hours of study, training and evaluation, and proof of your sound, safe and sage practice is being endangered by the use of lethal chemicals in injections. Is that accurate?

MS. CARLSON: Do you have that – are you reading from somewhere?

MR. SPILLANE: Yeah. I have it written down here, but it's also in the article if you wish to – let's see. Give me a moment and I'll find the exact quote.

BY MR. SPILLANE:

Q. (Reading:) My right to use sodium thiopental was earned through thousands of hours of the study of pharmacology, anatomy, physiology, training and evaluation. It was earned by the granting of a medical

degree. It was granted by State medical boards whose job is to protect the public. It was validated by granting the hospital privileges based on proof of my sound, safe and sage practice and a license from the Drug Enforcement Agency (end of reading).

And above that, you talk about how that – the right to use thiopental has been taken away because it's been used in lethal injections and is no longer [21] available. Is that accurate?

A. Yes.

Q. Talking a little bit – this may go a little bit into your qualifications. Explain to me a little bit about the thousands of hours of training and so forth that go into your ability to use anesthetics.

A. An anesthesiologist is a physician who has trained in that particular specialty after having completed four years of college and four years of medical school. That training is an additional four years. During that time, I studied anatomy and physiology and – and chemistry as it applies to anesthesiology.

At the end of that training, I write an exam, and I have a – I'm further examined through an oral exam format. And the American Board of Anesthesiology, which is an organization recognized by the – a group – by an organization that grants specialty certification to various medical specialties.

I submit myself to that, and having passed those things, I'm – I'm granted as a – or designated as a member of the American Board of Anesthesiology in this case. And so the sum total of that time, of all that training, is – is thousands of hours.

Q. That would include conducting many, many surgeries, doctor?

[22] A. Anesthetics.

Q. Well, what – I probably misspoke. Doing the anesthesia during many, many surgeries?

A. Correct.

Q. How many?

A. Well, are you asking me during my training or –

Q. Yes. During your training in order to become board certified, how many anesthesias would you have to do during surgeries?

A. Well, on average, it would be – say we could estimate four, maybe four anesthetics a day. So that would be twenty a week. Maybe eighty a month. Maybe eight hundred a year, times by four would be thirty-two hundred anesthetics in the training experience.

Q. When you did these anesthesias, were you required to be competent to set IV lines?

A. Yes.

Q. Were you required to be competent to do that in peripheral veins?

A. Yes.

Q. Were you required to be able to do that in central veins?

A. Yes.

[23] Q. Would that include the femoral vein?

A. Yes.

Q. Would it include the subclavian vein?

A. Yes.

Q. Would it include the jugular vein?

A. Yes.

Q. And how many times did you have to do that in the period you were training to be board certified, sir?

A. I would say that I did that – in each of those locations or in total?

Q. Well, just tell me generally how often you had to use a central line. I won't differentiate between the location, between the large veins.

A. Well, during my training, I would say that I did that a hundred times, maybe two hundred times. I don't recall specifically, but it was an often enough experience that I would do it on a regular basis.

Q. And is that typical for persons that are trained to be a board-certified anesthesiologist, sir?

A. Yes, it is.

Q. And would it be fair to say that if you weren't competent at that, you wouldn't have gotten certified?

A. That would be one of the requirements that [24] an anesthesiologist would require for certification.

Q. All right. Let's flip to Exhibit 13, Frantic Scene at State Killing. Page 4 of 4 is what I'm interested in.

MS. CARLSON: Did you say 13?

MR. SPILLANE: Yes, ma'am.

BY MR. SPILLANE:

Q. Timeline Describes Frantic Scene at Oklahoma Execution. Sorry, my notes didn't quote it exactly. Are we at page 4 of 4? Four – 4 of 4?

A. Yes, sir.

Q. Okay. Yes?

A. Yes.

Q. And it earlier describes that Oklahoma had said that a femoral vein had blown to explain the allegedly – the botched execution. And you have a comment there. Let's see. (Reading:) The femoral vein is a big vessel, Dr. Zivot said. Finding the vein, however, can be tricky. The vein is not visible from the surface and is near no major artery. You can feel it and you can't see it. Without special expertise –

A. You can't feel it.

Q. Oh, I'm sorry. You're right. (Continues reading:) You can't – without special expertise, you can't feel it. Without special expertise, the failure is [25] not surprising (end of reading).

And so what I'm gathering here is – from the paragraph above that, that you're disputing Oklahoma's assertion that the femoral vein was blown.

A. This was – this – that was –

Q. I'm sorry. Let me ask a better question. I'll read the paragraph I'm thinking about. (Reading:) Dr. Joel Zivot, an anesthesiologist at Emory University School of Medicine, said that the prison's initial account that the vein had collapsed or blown was almost certainly incorrect (end of reading).

And I want to know why you – why you said that.

A. The – what was described was that the catheter that was used was actually a short catheter. And so I think that the word blown might be a bit of a term of art. So they claimed that the vessel did not – ruptured in some way. And my view here is that the catheter was pulled out of the vein, was not in the vein. And so the distinction here, I think, is perhaps what you're asking me.

Q. Yes. That's – I was trying to get at why you made that conclusion. I wasn't sure from the article. And in the next paragraph when you're describing your conclusion, you say, the femoral vein is [26] a big vessel.

Would that go to your reasoning in why you concluded it wasn't blown as they used the term?

A. The femoral vein is a vessel of a – of a large caliber, and should be able to, if – when properly placed, take a fair amount of fluid when – as it is infused into the vein. And so for that vein to rupture, from what was described, seemed unlikely.

Q. And let me contrast it to a peripheral vein. If a peripheral vein was used, that might be more likely to rupture because it's not a big vessel, as you describe the femoral vein?

A. Yes.

Q. Okay. Now your article at Exhibit 7, for CNN, the thrust that I got from that article is that it's opposition to lethal injection, and at one point you said, if capital punishment continues, it needs to be a better method. Is – is that a fair summary of the article?

A. Not really.

Q. Well, tell me – tell me what you meant there.

A. Well, are you saying that that's – I think that's one point.

Q. That's one point that you made, is –

[27] A. Yeah.

Q. – that if lethal – if execution continues, it shouldn't be lethal injection. Is that a fair point?

MS. CARLSON: Take your time to read the entire article if you need to because he's asking you a lot of questions about various articles.

THE WITNESS: Ask – please ask me that question again.

BY MR. SPILLANE:

Q. Well, let me – let me see if I can come to a specific point that I can ask you about then, instead of – please keep reading and I'll ask you about a specific point.

A. (Reviewing).

Q. I'm looking at your – in the concluding thing at the end of page 3 of 3. And you begin the paragraph: (Reading:) Lethal injection as presently practiced is an impersonation of medicine populated by real doctors who don't acknowledge the deception. The rightness or wrongness of capital punishment remains an open question, but it's time to reject lethal injection. If capital punishment continues, it needs another method (end of reading).

Is that consistent with – what you wrote [28] there, consistent with your views?

A. Yes.

Q. I'm going to go next to Exhibit 10, which is titled The Absence of Cruelty is Not the Presence of Humanness.

A. Humanness (pronouncing), actually.

Q. Oh. Okay. I thought there would be another E there. My mistake. Not the presence of humanness, physicians and the death penalty in the United States.

Are you familiar with the content of this article?

A. Yes.

Q. I'll read the last sentence in the article. (Reading:) If the death penalty is cruel, then attempts to reduce cruelty by pharmacological adjustments are not necessarily humane, or worse, create an illusion of humanness as they are physician directed (end of reading).

Do you agree with that analysis?

A. Yes.

Q. Okay. Now the next article I'm going to go to is Number 11, which is the Fordham Law Review article, Too Sick to be Executed: Shocking Punishment and the Brain. And I'm going to turn to page 2 of 7. I [29] apologize for taking a moment here, but I have a specific quote I wanted to ask you about.

Here we go. I'm looking at – under Roman Numeral II, Too Sick to be Executed. I believe it to be the second full sentence in the paragraph, and it's describing Mr. Bucklew's tumors. And it says –

A. Which number is that? I think these are all numbered –

Q. Roman Numeral II.

A. No, but these are all numbered sentences. So which number?

Q. Well, it's – it's right after Footnote 34. It begins these vascular tumors.

A. I see.

Q. Okay. (Reading:) These vascular tumors have been present since birth and will continue to grow. They are resistant to definitive treatment and will eventually obstruct Bucklew's airway and kill him by

self-strangulation if he is not executed first (end of reading).

Is that your – do you agree with the statement that you wrote there?

A. Yes.

Q. Okay. And I think let's shift then to your actual Supplemental Report, which is Exhibit 2. And if [30] we go to page 8.

A. Just give me a moment to find 2.

Q. Oh, I'm sorry. Well, how about let's go to – let's go to page 8, paragraph 10, when you get there.

A. Yeah. This is 5. This is 2. All right, I found it.

Q. All right.

A. All right. So here's 2. So, I'm sorry, where?

Q. Paragraph labelled 10 at the bottom of page 2. This is in your report.

A. Bottom of page 2.

Q. Bottom of page 8. I'm sorry. If I said 2, I apologize. It's paragraph 10 at the bottom of page 8.

A. Okay.

Q. All right. What you wrote there: (Reading:) As already described, Mr. Bucklew's condition is progressive. As of April 2012, Mr. Bucklew's medical records indicate that his condition did not appear to place him at risk of life-threatening hemorrhaging.

My examination of Mr. Bucklew on January 8, 2017, as well as my review of recent MRI and CTI imaging reports, form the basis of my conclusion at the – at the present time. Mr. Bucklew is at risk of life-threatening hemorrhaging, particularly under the

conditions imposed [31] by Missouri's execution procedure (end of reading).

So is – is that paragraph consistent with your earlier conclusion that if he's not executed, the hemangioma is eventually going to strangle him?

A. Yes.

Q. Okay. Let's go to – oh, let's see, page 9, conclusion A. (Reading:) It is my professional opinion that Mr. Bucklew suffers from a severe and life-threatening form of cavernous hemangioma. Given the nature of Mr. Bucklew's condition, it is my medical opinion that the vascular tumors that obstruct Mr. Bucklew's airway will present a permanent threat to his breathing, and that life-threatening choking episodes will occur on an ongoing basis. When these choking episodes occur, they will be associated with hemorrhaging to a varying degree that will be easily visible by any observer (end of reading).

Is that also consistent with your conclusion that the hemangioma will strangle him if he's not executed?

A. I think that what I said here is consistent with my view, so, yes.

Q. Okay. And when that happens, then there will also be hemorrhaging is what I take from A. When he chokes, there will also be hemorrhaging.

[32] A. That's my belief.

Q. Okay. Now I'm going to shift to Exhibit 12, which is The White Coat: A Veil for State Killing? Now as I take this article, it is your account of an execution that you witnessed in the State of Georgia.

A. Yes.

Q. Why would you write an account of an execution which you witnessed in the State of Georgia?

A. I'm not sure I understand your question.

Q. Well, this is – let me ask it this way. Did you write an article – did you witness an execution in the State of Georgia and write an article about it as part of your vocal advocacy against lethal injection?

MS. CARLSON: Objection. Form.

BY MR. SPILLANE:

Q. You can answer it if you can understand it. If it's too confusing, I'll try again.

A. I – I don't really understand what you're asking me.

Q. Why did you write the article, The White Coat: A Veil for State Killing?

A. Why did I write it?

Q. Yes, sir.

A. I'm – I'm interested in the subject.

Q. Why did you witness the execution?

[33] A. I was requested to witness it by the person executed, Mr. Wellons.

Q. Okay. When we go to page 3 of 6, you described a little bit of what you saw there. And I'm looking at the paragraph that begins, the inmate. I believe it is the one, two, three, fourth paragraph from the top, the fourth full paragraph.

A. Yes.

Q. Okay. And you said: (Reading:) The inmate has an apparent change in his respiratory pattern and I assume the execution has therefore begun. He twitches

strongly once, mostly on the left side of his body. I am looking hard now for something in his breathing or in his movements that I could construe as consciousness or the lack of it (end of reading).

And then you kind of move on to something else. I was wondering if you saw something in his breathing that you could construe as consciousness or the lack of it?

A. No.

Q. Okay. Next you said that a corrections officer fainted, in the next paragraph.

A. He collapsed. The corrections officer collapsed.

Q. All right, yeah. And you used the word, I [34] lose count when suddenly one of the corrections officers faints and falls forward. I was using your word.

A. Okay.

Q. Okay. How long were you distracted by the corrections officer's fainting?

A. I don't understand your question.

Q. Well, later in the article, you came back and talked more about the inmate and didn't see anything abnormal occur. But that talk – that happens after you talk about the corrections officer fainting and you describe that. So I was wondering how long your attention was off of the inmate.

A. I don't –

MS. CARLSON: Objection. Foundation.

THE WITNESS: I don't know how long it went on for. I had no watch. I had no way – if you're asking me

in matter of minutes, is that what you're asking me, or is this a –

BY MR. SPILLANE:

Q. Well, let me ask the question a different way. Earlier you described you didn't see anything prior to the guard fainting, any change in breathing that would indicate he was or was not conscious. Did you see anything like that during the remainder of the execution?

A. It was very hard to see much. So all I [35] could see, I was looking through a window from a distance. It was hard to see things with great precision.

Q. All right. I'm looking at page 5 of 6, and I'm looking at the paragraph that begins with, if the Georgia Composite Medical Board.

A. Un-huh (affirmative).

Q. And you write there that: (Reading:) If the Georgia Composite Medical Board or any other State medical board refuses to be a plaintiff against the warden for an order of mandamus to force disclosure of the identities of physicians hired to supervise lethal injections, then probably any resident in that state has sufficient interest in knowing whether the men in question are his or her doctors (end of reading).

And then in the next paragraph, you say: (Reading:) Residents may bring a relator action against the warden and may name the medical board as a defendant in whose name Mr. Jordan – I assume – Mr. Jones (end of reading). I assume that's the guard – moves for mandamus.

A. No, Mr. Jones is –

Q. Mr. Jones is the defendant? Okay.

MS. CARLSON: No. I think he's – no. I think that misstates what the article says.

[36] THE WITNESS: It's just – he's a –

BY MR. SPILLANE:

Q. Who is Mr. Jones?

A. A theoretical plaintiff.

Q. Okay. The citation of the case would read Georgia Composite Medical Board, ex rel. Jones v. Warden. So if I take this correctly, you're suggesting here that residents of the State of Georgia should bring an action against the warden based on what happened at this execution. Is that fair?

MS. CARLSON: Objection. Form.

THE WITNESS: No. That's not what I'm saying.

BY MR. SPILLANE:

Q. Tell me – tell me what you mean.

A. The – what's at issue is the fact that in Georgia, physicians who participate in lethal injection, their identity is kept secret. And medical boards need to know the identity and activity of all physicians within the State. But these particular physicians, if they choose to participate, their identity is protected, and the medical board should demand to know what all physicians in the State do under normal considerations when they are practicing or holding themselves out to be practicing medicine in any form. And that's my point.

[37] Q. So as I understood it, you first of all talked about the State Medical Board refusing to be a plaintiff, and then you talked about the residents may bring an action against the warden. Is that accurate?

A. I don't – I don't understand your question.

Q. All right. You said here, residents may bring a relator action against the warden and may name the board as a defendant. So are you saying that residents should sue the medical board because they're not actively pursuing the physicians who participated in the execution?

MS. CARLSON: Objection. Form.

THE WITNESS: This is an article that I wrote which are my views on – on something of this – in this subject. And I'm not holding myself out as a legal expert or as a national advocate in some way, nor am I representing myself as the beginning of some lawsuit that should be brought against the State. That's not my intention here.

BY MR. SPILLANE:

Q. Okay. I'm going to go next to Exhibit 14, which is titled Florida's Gruesome Execution Theater, in the Washington Post. Did you give an interview for this [38] article?

A. Yes.

Q. What was the point of your interview here, sir? What did you say?

A. I – I don't recall.

Q. Okay. That's fine. Let's – let's move forward. I'm going to go to Exhibit 15, Huffington Post. It's titled Oklahoma Wants to Reinstate the Gas Chamber, and Experts Say it's a Bad Idea.

And then I'm looking at page 2, where we start with Dr. Zivot – Dr. Joel Zivot, assistant professor of anesthesiology. Are we there?

A. Uh-huh (affirmative).

Q. And then it's –

A. Yes.

Q. – (Reading:) Dr. Joel Zivot, assistant professor of anesthesiology and surgery at Emory University School of Medicine, told the Huff Post it is ethically impossible for a doctor to conduct tests and therefore reach conclusions on execution procedures. No physician is an expert in killing, and medicine doesn't itself – doesn't position itself intentionally in taking a life, Zivot said. He added, there's no therapeutic use of nitrogen gas and there's no way to ethically or practically test if nitrogen gas is a humane alternative [39] (end of reading).

So what were you referring to in that second paragraph there, sir, about no physician is an expert in killing?

A. I'd – I'd have to – I – I don't know if I can recall the question that was asked of me at the time. So without knowing the question, I'm – I'm not sure I can accurately –

Q. Well, let me ask you is this is [sic] accurate, where you wrote, there's no way to ethically or practically test if nitrogen gas is a humane alternative. And I assume by that, you mean a humane alternative to lethal injection. Is that accurate?

A. I'm not sure that I used the word humane, frankly. That may have been what they inserted here, because that would not be my word here.

Q. Tell me what your word would be.

A. I would say not cruel.

Q. So there's no way to tell if nitrogen gas would not be cruel, is – is that what you were saying?

A. Yes.

Q. I know you just spoke about nitrogen, and the article talks about gas chambers, so I'm guessing it might be broader. Do you have an opinion if there's any way to know that another gas used in an execution would [40] not be a – would not be cruel?

A. I have no opinion about that.

Q. Well, would the same reasoning that you can't test it, therefore you can't know about nitrogen, apply to other gases?

A. I – I'd have to know the entirety of what you're describing to know how to answer your question.

Q. Well, you said there's no practical way to test if nitrogen gas – and you used the word cruel here, so I'll use the word cruel – is a cruel alternative. Does that statement apply to using other gases besides nitrogen as a replacement for lethal injection?

A. I – I'm not an expert in any technique of killing. If you're asking me to design or describe –

Q. No, I'm not. I'm asking if your statement that your made about nitrogen applies to other gases.

A. I would have to know which gases, and the details, to be able to answer your question.

Q. Okay. Let's move on to document 18, which is your Affidavit in the Gissendaner case. Let me know when you've – you've gotten there.

A. I've got it.

Q. Now, I'm looking at paragraph 11 on it looks like page 4 of 6. And what you wrote there is: (Reading:)

I have been informed that Kelly Gissendaner [41] is a 46-year-old woman with a height of five foot ten inches and a weight of two hundred and ten pounds. This corresponds to a body mass index BMI of 30.1 kilograms per M squared.

A. Meter squared.

Q. Meter squared. Thank you. I didn't – I do not know the term. (Continues reading:) And puts her in the obese category. Intravenous access is very difficult to obtain in obese individuals. Female gender is also a misfactor for difficult intravenous access, as their venous systems tend to be smaller than those of men. As a result of Kelly Gissendaner's diagnosis of obesity and her gender, I anticipate that establishing intravenous access will be extremely difficult. Obesity is also a known risk factor for obstructive sleep apnea (end of reading).

Now, did you know anything about Ms. Gissendaner besides the information that you said in paragraph 10 that you were told – paragraph 11 that you were told?

A. What sort of information do you –

Q. Anything. I mean, you said I was informed, and then before you gave your opinion, you told in paragraph 11 what you were informed about Ms. Gissendaner. Did you know anything else?

[42] A. I don't know if I understand what you're asking, specifically. Anything else, meaning –

Q. Did you examine her medical records?

A. I can't recall.

Q. Did you examine her?

A. No, I did not examine her.

Q. I'm looking at paragraph 18. You said: (Reading:) As a result of these facts, I hold the position that if the State of Georgia proceeds with the execution of Kelly Gissendaner as outlined in the referenced lethal injection procedures, she will suffer an excruciating death (end of reading).

Do you recall making that conclusion?

A. I see it here, yes.

Q. But do you recall making it?

A. Yes.

Q. And your signature's on the Affidavit, is it not?

A. Yes.

Q. Now is there anything in your Affidavit about Ms. Gissendaner's physical condition except that she's female, she's 46 years old, and she's overweight, and overweight people tend to get sleep apnea?

A. I would have to review –

Q. Okay.

[43] A. – the entirety of this.

Q. Okay.

A. And also records that I don't have here, to remind myself.

Q. Well, why don't you read this and tell me if there's anything in there besides she's overweight and she's female, and overweight female people have sleep apnea?

A. So then ask me the question that you want me to answer then.

Q. I wanted to know if there's anything in this Affidavit besides the information in paragraph 11 that

you based your conclusion on about Ms. Gissendaner's condition?

MS. CARLSON: Objection. Form.

THE WITNESS: (Reviewing). All right. So I've looked at this now so, please, again, I'm sorry, ask me your question one more time.

BY MR. SPILLANE:

Q. Is there anything in that Affidavit, besides the information in paragraph 11, that you knew about Ms. Gissendaner's physical condition?

A. No.

Q. So you based your conclusion, at least as far as it went to her physical condition, that she would [44] suffer an excruciating death during an execution, on the fact that she was a female and she was overweight?

MS. CARLSON: Objection. Form.

THE WITNESS: There were two points that I made here.

BY MR. SPILLANE:

Q. Yes.

A. One was difficulty in obtaining IV access and the problem of that.

Q. Yes.

A. And the second was her risk for obstructive sleep apnea based upon her BMI. And then drawing from the experience of the execution of Dennis McGuire. And that was the reason why I came to my conclusions.

Q. But the information you had about her was that she was five foot ten, weighed two hundred and ten

pounds, she was female, and females are prone to sleep apnea?

A. No. No, I didn't say females are prone to sleep apnea.

Q. Well, let me look at what you said.

A. I said females are – have smaller vein aperture, and that her weight is what puts her at risk for sleep apnea.

Q. You're right. Obesity is also a known risk [45] for obstructive sleep apnea.

Now did the United States District Court or the Court of Appeals stay Ms. Gissendaner's execution?

A. Are you asking me if Kelly Gissendaner was executed?

Q. Yes. I'm asking you first, those opinions that I handed you –

A. Yeah. I don't know.

Q. – did either –

A. I can't recall.

Q. Was she executed?

A. Yes, she was.

Q. Did you read any articles about her having suffered an excruciating execution?

A. I didn't read any articles about that.

Q. Did you write any articles about it?

A. No.

Q. You wrote about the Georgia execution where that man, Mr. Clayton Lockett, was executed.

A. That was based upon the narrative of others.

Q. Do you have any reason to believe – well, let me ask you this. If I represent you – to you that there was an NBC article that you can find on the internet that indicates that she sang Amazing Grace [46] during the execution, would that be consistent with her suffering an excruciating execution?

MS. CARLSON: Objection. Form.

THE WITNESS: I think that the – I can't know, nor can anyone know, what Ms. Gissendaner felt or didn't feel. I can't know that. I can only speculate it. She did not, by reports, which are very flawed, generally, of – based upon witnesses.

The reason why I say it is, for example, in the case of the execution that I saw, there was no report of that in the official report that anybody – that any corrections officer fell on the legs of Marcus Wellons. I know that I saw that. That didn't make it into the execution report.

So the fact that she – I think we probably both know that the way that these things are reported, they're reported with perhaps either a certain style or intention. If you're asking me are these reports impartial, I would say –

BY MR. SPILLANE:

Q. No, I'm not asking you if they're impartial. I asked if you read a report that she sang Amazing Grace during the execution?

A. I – I've heard that. I heard that she [47] sang Amazing Grace at some point.

Q. So you were aware of that?

A. Yes.

Q. How were you aware of it?

A. By a report in the media.

Q. You just told me five minutes – a moment ago that you didn't read any reports.

A. No, you asked me if I read any report if she suffered.

Q. Oh.

A. If I read anything of whether she had suffered. And the answer was I did not read any report that she had – that anyone had written that she had suffered. But that's –

Q. Okay. That's probably a bad question on my part. I should have asked you if you read any reports in the media. My mistake.

Let's see if we can move on to document 21, which will be your testimony in State of Florida v. Davis. I'm going to go to – when you're ready – to page 22.

A. I have it. Okay.

Q. All right. If you'd go ahead and read that page real quick.

A. Just where? The beginning of Q, or just [48] from the top of the page?

Q. Just from the top, please.

A. (Reviewing).

Q Well, I'll stop you. What I'm mainly interested on page 22 is the one that begins with A, well, anesthetics. And when you've read that, let me know. Just that, that answer.

A. (Reviewing). Okay.

Q. When you started there on A, when you were asked, well, it doesn't deaden pain correct, sir, you answered, well, anesthetics, when done correctly, do take away pain. Could you explain to me how that works?

A. Which part? Anesthetics take away pain?

Q. Yes. How do anesthetics take away pain, sir?

A. Well, pain is a – is something that is a response to a stimulus that would be considered to be generally noxious. And certain kinds of medications used in an anesthetic can block the perception of that noxious stimulus.

Q. Does that work for barbiturates such as thiopental and pentobarbital?

A. No.

Q. Okay, you said, well, anesthetics, when done correctly, do take away pain. When you use [49] thiopental, would the people feel pain?

A. Barbiturates, as a class, are not considered to be analgesic.

Q. I understand. When people are unconscious, they're in a coma-like state. Do they – let me – let me – that's a compound question. Do anesthetics, before a surgery is conducted, put a person in a coma-like state?

A. I don't know what you mean when you say coma.

Q. Are they in a – in a place where they cannot feel noxious stimuli – stimuli during surgery?

A. The interior experience under an anesthetic is somewhat variable, but the – the hope is that the

experience that is taking place is not noxious to a degree that it would either cause great distress in the moment or cause distress afterwards.

Q. And is that what you meant when you said anesthetics, when done correctly, do take away pain?

A. Anesthetics, when done correctly, can take away pain, yes. But – I'm sorry.

Q. Go ahead.

A. No.

Q. No, please go ahead. I don't want to cut you off.

[50] A. No, I'm – I'm done.

Q. Okay. And so do anesthetics, and I mean barbiturates such as pentobarbital or sodium thiopental, when done correctly, create a stim – a situation in the patient that takes away pain?

A. Barbiturates are not analgesic.

Q. I understand. That wasn't what I asked you. I asked you if you use thiopental as your surgical anesthetic, do you – do you get a level of depth there where it takes away pain?

A. It's not used in that way.

Q. Using sodium thiopental as a surgical anesthetic?

A. It's not –

Q. Before propofol?

A. It's not – no, sorry.

Q. Before propofol became in, was not sodium thiopental the generally used surgical anesthetic in the United States?

A. I need you to define for me when you say surgical anesthetic, what you mean, or what part of the anesthetic you intend there.

Q. Was it commonly used as an anesthetic for surgeries in the United States?

A. It was used as something called an [51] induction agent, if you're familiar with that term.

Q. Yes.

A. It was used as an induction agent in combination with other agents.

Q. What other agents?

A. Narcotics, benzodiazapenes, maybe analgesics of other classes.

Q. Well, benzodiazapenes are not analgesics, are they?

A. You're correct, they're not.

Q. Okay. What was the thrust of the evidence you gave in the Davis case? What was the opinion that you gave to the Court?

A. I – I don't recall.

Q. Would it refresh your recollection to indicate – if we go to page 24 and 25 of your testimony, which you indicated that he would have an attack of acute porphyria, severe abdominal pain, rashes, neuropathy, burning sensation, heat and cold tolerance, alodemia, which is sensitivity to general touching, confusion and seizures.

Why don't you read through 24 to 26 if you have a second there?

A. (Reviewing). Okay, I've read it.

Q. Is that a fair conclusion that you [52] indicated, that if he would be executed using midazolam, that he would have an attack of acute porphyria, which would result in these symptoms?

A. I don't think this was midazolam. Does it say midazolam?

Q. Yeah, it was midazolam. And you relied on a study of chick embryos.

A. Okay.

Q. So is that consistent with your testimony which you indicated he would have an attack of acute porphyria if he was executed?

A. That was my opinion, yes.

Q. Did you have any knowledge that he had ever had an attack of acute porphyria in his life?

A. I think – no.

Q. Okay.

A. But – no. Ask – whether I knew it or not is not the question, I don't believe. So that was my concern based upon his history.

Q. What history?

A. That he was at risk for an attack of porphyria. But I'd have to look back again. It's been a while, on the medical information. If I made the statement, then I'm certain that I had a reason to make it.

[53] Q. Do you recall relying on a – on a chick embryo study in this case?

A. Well, relying. That may have been one of the things that I reviewed.

Q. Let's go to – now, let me ask you about the study. Did the study that you reviewed on chick embryos also say at its end that triazolam and midazolam are generally listed as safe for use with people that have porphyria?

A. I can't recall it. I'd have to look at it again.

Q. Now, do you recall that the Florida Supreme Court denied the motion for stay of execution that was based at least in part on the claim that he would have an acute attack of porphyria?

A. I believe so.

Q. All right. Do you recall that Mr. Davis was executed?

A. I believe so, yes.

Q. Now I'm going to ask a better question this time. Did you read any news reports about his execution?

A. I don't recall.

Q. So you didn't – and you didn't write any articles about his execution?

A. Not that I recall.

[54] Q. And the answer to this question may be no, but if he had shown symptoms of porphyria during his execution, such as vomiting, nausea, convulsions, that's something that somebody would have written about, isn't it, Doctor?

A. Potentially not.

MS. CARLSON: Objection. Form.

THE WITNESS: I have no idea.

BY MR. SPILLANE:

Q. If I represented to you that there was an article in the Lakeland Florida Ledger, which is, I believe, where the victim was from, that he showed no signs of discomfort during his execution, would you have any reason to disagree with that?

A. What, where the article was written?

Q. The article was written by the Lakeland Florida Ledger. I assume that the author witnessed the execution, as media people do, and he wrote that there were no signs of discomfort. Do you have any reason to disagree with that?

A. Well, I think my answer is, as I've stated before, that there is a difficulty here in what witnesses can see, and witnesses are poor at recalling or describing events. So whether or not that person who wrote that article, what the basis of their opinion was, [55] I cannot know.

Q. Okay. So there might have been nausea and vomiting or seizures and the witnesses might not have reported it?

A. Yes, I would agree.

Q. Let's go on to document 23.

A. In the same way that there was no report of a corrections officer collapsing on the legs of Marcus Wellons.

Q. I'm going to find your Affidavit here, which I think is at the tail end of Exhibit 22. And what I'm looking for here is – let's see. Starting at paragraph 5 on the first page of your Affidavit.

MS. CARLSON: So you said 23 first.

MR. SPILLANE: Oh, I'm sorry. I meant – I have – I have this. Is this what you're looking at, 23?

MS. CARLSON: Yeah. You said 22.

MR. SPILLANE: I apologize. I must have misspoken a second time.

BY MR. SPILLANE:

Q. Have you got the right document in front of you, sir?

A. This is 23, yes?

Q. Yes.

[56] A. Yes.

Q. And then I'm looking at – your Affidavit is at the back of it. It starts with I, Joel Zivot, being first sworn as follows.

A. What page?

Q. It's at the – it's at the – if you go back to the last three pages of the document, because it's attached to a pleading.

A. Yes, I see it.

Q. Okay. I'm looking at paragraph – starting at paragraph 5. (Reading:) I have reviewed the medical records of Mr. Henry, that record of his blood pressure at various times between 1987 and 2014. These records show both systolic and diastolic hypertension on many occasions. It is of note that Mr. Henry's hypertension was present prior to age 35 (end of reading).

And then in paragraph 6, you say: (Reading:) I have reviewed blood work between 2012 and 2014 that demonstrates a marginal HDL in relation to cholesterol relationship (end of reading).

I'm going to stop you there and ask you what you meant by a marginal HDL in relation to cholesterol ratio.

A. In order to make a diagnosis of – of an abnormal lipid profile, the way that it can be calculated [57] is by a ratio of the quantity of cholesterol that's referred to as HDL and cholesterol referred to as LDL.

Q. Uh-huh (affirmative).

A. So it would be the quantity of HDL in comparison to quantity of LDL that would make the diagnosis of an abnormally elevated cholesterol where it would be problematic for the person.

Q. Right. And what I wanted to focus on was what you meant by the word marginal.

A. Marginal, being insufficient.

Q. So all that – it doesn't mean that it's anything more than a yes or no conclusion that the good cholesterol was too low compared to the bad cholesterol?

A. Correct.

Q. Okay. And it says, in the next paragraph: (Reading:) Hypertension is quantitatively the most important risk factor in premature cardiovascular disease and is strongly associated with dislipidemia. Dislipidemia is an independent risk factor for coronary artery disease (end of reading).

What do you mean by risk factor for coronary artery disease?

A. Coronary artery disease is a condition that occurs in – in the population, and there are certain factors that when present make the likelihood of coronary [58] artery disease be more the case. So cholesterol is one of those risk factors. When a person

has elevated cholesterol, it means that the likelihood of coronary artery disease is increased.

Q. Okay. And also, he has high blood pressure, so that's also an independent risk factor that meets the likelihood that he has coronary – the risk that he has coronary artery disease is also increased?

A. Yes.

Q. Okay. Okay. I'm going to go down to paragraph 13, where you say: (Reading:) The design of the Florida lethal injection procedure will very likely cause serious illness and needless suffering to Mr. Henry as a consequence of the acute coronary event (end of reading).

Does that mean a heart attack?

A. I don't know how – how you define a heart attack, so I don't know how to answer your question.

Q. Why don't you define an acute coronary event?

A. An acute coronary event can be where one of the arteries that supply blood to the heart may become obstructed or narrow to the point where there can be some downstream negative effect of the heart muscle.

Q. So as I understand what you wrote earlier, [59] you didn't say that this man necessarily had coronary artery disease, you said he had two risk factors. High blood pressure and low HDL compared to the LDL.

A. That would be – yes, that's correct.

Q. And based on that, you concluded: (Reading:) Mr. Henry – let's see – let's see, will likely – that the injection procedure will very likely cause serious illness and needless suffering to Mr. Henry as a consequence of the acute coronary event (end of reading).

And that acute coronary event is going to happen because he has these two risk factors for coronary disease?

MS. CARLSON: Objection. Form and foundation.

THE WITNESS: His blood pressure will fall, and it's the falling of the blood pressure that will lead – in the setting of narrowed aperture arteries, that would be the mechanism for the acute coronary event.

BY MR. SPILLANE:

Q. But that assumes that he has coronary artery disease?

A. Yes.

Q. And you didn't know that?

[60] A. There would be no way of knowing without a heart catheterization. That was my opinion.

Q. But you still concluded that there would be a substantial risk?

A. Mr. Henry – in my examination of Mr. Henry, Mr. Henry complained to me of angina. And so on the basis of Mr. Henry's complaints of angina, I concluded that he very likely had coronary artery disease.

Q. Oh. What paragraph of your report is the angina in, sir?

A. I don't know. I don't recall it.

Q. Why don't you read it and show me?

A. Where – where does my part begin?

Q. Well, the whole thing is you. It's – you wrote the whole thing.

A. Okay.

Q. Oh, you mean when does your Affidavit begin?

A. Yes.

Q. It begins on the third to the last page.

A. All of that is mine here?

Q. Yes. Where it starts with I, Joel Zivot, being duly sworn.

A. I really don't know if that's in here or [61] not. I can't say.

Q. Well, I'll wait – I'll wait for you to determine.

A. But I – (reviewing). I – I don't see it listed here exactly, but I recall in my examination and in my conversation with him that that's what he complained of to me.

Q. I know this is probably a dumb question, but do you know why you didn't put it in the – in the Affidavit, explaining your opinion?

A. I – I don't recall.

Q. All right, then. If you'd move on to – let's go back to document 2, which is your Supplemental Report, because I have a question about that. I'm sorry for moving you all over the place. Why don't you go to Exhibit D when you get there.

A. What page?

Q. Oh, I don't –

MS. BIMMERLE: The last?

BY MR. SPILLANE:

Q. Yes, I think it's your last exhibit that you attached. See, I'm having trouble finding it too, but I think I've got it memorized well enough to know where it's at.

A. This is the one that is – begins with the [62] MRI?

Q. About the MRI. Look at the bottom of page 2 there.

MR. SPILLANE: Could you hand me document 2, ma'am, because I seem to have lost it.

THE COURT REPORTER: Which one do you need?

MR. SPILLANE: Exhibit 2. I've lost it in my pile.

THE COURT REPORTER: Here we go (presenting).

MR. SPILLANE: Thanks. I'll give it right back to you.

MS. BIMMERLE: By Exhibit D, did you mean Exhibit C?

MR. SPILLANE: I'm talking about the MRI report.

THE COURT REPORTER: Can you say that again? I was looking over here. Just what did you say? I didn't get it.

MS. BIMMERLE: I just wondered if by Exhibit D, he meant Exhibit C?

BY MR. SPILLANE:

Q. I think I probably did. Let me see, because I was working from memory, and I apologize if I got it wrong. It's the MRI report. It starts with 1 of [63] 3, and I'm looking at 2 of 3. And I'm looking at the second – well, it's the last big paragraph on the page. And you said, the left vertebral artery is dominant. No aneurysm is seen –

A. Wait, I'm not seeing what you're seeing. I'm sorry. Oh, I see. So this is the last – the sentence.

Okay. This is not my report, by the way. You said I said.

Q. No. Oh, I'm sorry. I thought – is this not –

A. No, I didn't write this. No.

Q. Oh, right, you just attached it. I apologize.

A. Yes.

Q. But I'm going to ask you about the meaning of something –

A. Okay.

Q. – in it, because you attached it. At the last thing that's said there is no vascular stains supplying the hemangioma. Tell me what that is and what it means.

A. This – in this view –

Q. Uh-huh (affirmative).

A. – they don't see any arterial – I believe it's arterial blood that they're referring to here – [64] that is connected to the hemangioma as they see it in this particular view.

Q. What is the significance of that, if anything?

A. I don't think there's any significance of it.

Q. Now, did you have a chance to read Dr. Antognini's supplemental report?

A. What would you refer to specifically?

Q. Paragraph 1. Well, let's see. Document 5. Let's see, I think it is page 2 of 3.

MS. CARLSON: The document – you said the supplemental, but document 5 is the initial report.

MR. SPILLANE: Then it should be document 4.

MS. CARLSON: Okay.

BY MR. SPILLANE:

Q. In paragraph 5 there, Dr. Antognini talks about rapid onset of unconsciousness. Is it relevant to his – to – to how fast unconsciousness would occur whether or not the hemangioma itself interferes with the normal distribution of the pentobarbital?

A. Ask me the question again.

Q. Is the hemangioma itself – is it relevant [65] to how fast unconsciousness would occur, whether the hemangioma itself, by diverting blood flow, interferes with the normal distribution of pentobarbital that one would expect?

MS. CARLSON: Objection. Form.

BY MR. SPILLANE:

Q. You can answer it if you understand it.

A. I don't think it's relevant.

Q. Did you find any evidence that the hemangioma is the type of formation that interferes with blood flow in the sense that it would interfere with the normal distribution of pentobarbital?

A. Did I find any evidence?

Q. Any evidence that the hemangioma itself is – do you know what the – I mean, are you familiar with the terms of a slow flow system and a fast flow system?

A. Yes.

Q. All right. And a slow flow system would be one where the blood flow does not flow into the hemangioma from the veins at a high rate, and therefore would be less of an obstacle to normal circulation, and a fast

flow would be that it flows faster into the hemangioma, and might interfere with normal circulation. Is that a fair characterization?

A. That's as you characterize it. I'm hearing [66] what you're saying.

Q. Well, you said you were familiar with the terms. Tell me what they mean to you.

A. I'm familiar from the – from the perspective of what is – what Dr. Antognini – how do you pronounce his last name?

Q. Antognini (pronouncing).

A. Antognini is saying. So ask me the question that you want to ask me specifically about this.

Q. Okay. Do you have specific evidence that leads you to believe that the hemangioma is either a fast flow or a slow flow system?

A. I don't know. I have no evidence for it specifically to answer the question.

Q. So that's not part of your opinion as to why the execution would have a substantial risk of unnecessary pain, because you don't know? Your opinion is based on other things. It's not based on the hemangioma being a fast flow system that would interfere with normal distribution?

A. Correct.

Q. That – that's what I was – that's what I was getting at.

A. Yes.

Q. I didn't say it very articulately, so thank [67] you for helping me.

(Off the record 2:00 p.m. - 2:24 p.m.)

BY MR. SPILLANE:

Q. Doctor, I'm going to ask you a question about Exhibit 1, which is the Missouri execution protocol.

A. Uh-huh (affirmative).

Q. I'm looking at the heading which is C, intravenous line, and then paragraph 1. And the sentence that I'm looking at says: (Reading:) Medical personnel may insert the primary IV line as a peripheral line or as a central venous line, e.g., femoral, jugular or subcranial, provided they have appropriate training, education and experience for that procedure (end of reading).

Now, as I understood your testimony earlier, when you were training to be a board-certified anesthesiologist, you did, I think you said, a hundred or more central lines. Is that accurate?

A. Yes.

Q. And I also believe you said that that was normal experience for a person who – before they were certified as an anesthesiologist. Is that true?

A. Let me change my answer there. I think that that was a high number. My own experience, because [68] of my career path, which was to critical care medicine, and I also was working in the field of cardiac anesthesia, I focused more than the average person.

Q. Well, let me ask a follow-up question then.

A person, in order to become a board-certified anesthesiologist, would have to have the appropriate training and experience to be able to insert an IV in a – in a – in a central line or central vein such as the subclavian, jugular or femoral?

A. In a patient.

Q. Yes.

A. In the setting of an operating room.

Q. Yes.

A. Not in an execution chamber.

Q. Well, let's talk about the operating room first. Is the answer yes?

A. If – if a person – I'm sorry, ask me again then.

Q. About the operating room, is the answer to my question yes?

A. And your question was?

Q. Does a person, in order to become a board-certified anesthesiologist, have to have the appropriate training and education and experience to be able to set an IV in a central line in a clinical [69] situation?

A. Yes.

Q. Now explain to me why an execution is different. Well, first of all, you said it was different. Tell me what you meant, because I'm not sure I understood.

A. No doctor is trained to care – to – to lend assistance in an execution chamber for the purpose of execution. So whether the training that a doctor obtains is suitable and can be transferrable to an execution setting, I cannot say. It's not made for that design.

Q. Is there something different, physically, about setting an IV in a central vein in an execution setting as opposed to a clinical setting?

A. This protocol is silent on exactly what would be available, what kind of conditions, what else would be

happening, for me to – to comment. It's not written as a medical document, so I cannot say whether or not it would be suitable and transferrable.

Q. Okay. I'll move on. I – I think you've answered my question. Let's go to document 2, page 8, paragraph 6, at the top.

A. Okay.

Q. You said: (Reading:) I also observed [70] during my examination that Mr. Bucklew has very poor veins in both of his arms. Poor venous visualization suggests that establishing intravenous access in the setting of a lethal injection will be potentially difficult, prolonged and painful for Mr. Bucklew (end of reading).

Did you examine any veins except the peripheral veins in the arms?

A. No.

Q. Why not?

A. What veins do you mean?

Q. The subclavian, the femoral, the jugular. Did you look at any of those?

A. There is no way to look at those veins.

Q. Is there any way to conclude, then, that it would be difficult to set an IV in those, more so than in the ordinary person, in Mr. Bucklew's case? Let me rephrase that. That question is backwards.

Is there any way, in Mr. Bucklew's case, to conclude that setting an IV in his subclavian, jugular or femoral veins would be particularly difficult as it would be particularly difficult in the peripheral veins?

A. I – I can't know, because those veins are not visible. A certain percentage of those veins will not be

where one imags [sic] them to be anatomically. This I [71] know. There's variations of anatomy. I don't believe – the way that those veins would normally be found would be through the assistance of ultrasound. That's how – that would be the standard of care now.

The execution protocol here does not specify or contemplate the use of ultrasound as an assistance. So now, what you're now talking about, is establishing venous access through what's called a blind technique. And blind techniques are going to have a higher failure rate than techniques with ultrasound, most certainly.

Q. Let me ask you this question. You said all – as I understood your answer, you believe the standard of care now is using an ultrasound for all central lines, including the subclavian and the femoral?

A. Yes.

Q. And why do you believe that?

A. I –

Q. Well, I mean, I know the jugular – has it always – it's your view it has always been the standard of care, or was there a time when the jugular required an ultrasound, and the subclavian and the femoral, that wasn't the standard of care?

A. Well, there was a time where ultrasound wasn't available. So at the beginning of my career, [72] ultrasound was not available, and so I learned to do these lines without ultrasound and I had a failure rate.

Q. What was your failure rate?

A. It depends on the circumstance. Sometimes, you know – I mean, each of those different locations that I probably had a different failure rate, honestly. And a

complication rate too. So I don't know if you're asking me a percentage or what are you asking me?

Q. Well, why don't we talk about a percentage on the femoral, if you know?

A. I don't know. It's probably now – my hands are mine, and so I can't speak to other people's failure rate, how facile they may or may not be. I think that in – and I don't know, in this case, how experienced a particular person would be, because when I – when you asked me before about competency or ableness to pass a fellowship, that would be a minimum standard. And so many of those people who go on to their careers don't actually perform these lines except during their training, and may also increasingly lose the ability to do them later on in their career.

Q. Okay. And the question I asked you was what your failure rate was during training without using ultrasound on the femoral vein.

A. Well, I probably would miss them sometimes [73] a third of the time. I would not be able to get them.

Q. And did you get better?

A. I got better, yes.

Q. What was it before ultrasound – before you started using ultrasound all the time, towards the end of the period when you were still doing it without ultrasound, what was your failure rate then?

A. I mean, I have to – it's hard to recall, honestly, but I would say that maybe, I don't know, ten percent of the time I would fail.

Q. And what would you do when you missed that ten percent of the time?

A. Well, I might try to go to the other side. If I failed once, I might go to the other side.

Q. Uh-huh (affirmative).

A. Or I would ask a more experienced person to try.

Q. I'm going to test your memory here. Did you ever miss on both sides?

A. Sure.

Q. What percentage?

A. I don't know. A small percentage, probably.

Q. And – go ahead, I'm sorry.

A. Well, because I would – are you asking me [74] as a trainee?

Q. Well, as you are board cert – well, just how about both. Both before you were board certified, right before you were board certified, and then right before you started using ultrasound.

A. Well, I think that when you're training, really there's an obligation to defer to senior people sooner. So if you fail one time, you know, you may get it on the second or third attempt or fourth attempt, but because you failed, it's really incumbent upon to you to pass it off to a senior person.

So it may be that because you – and it's kind of a – let me be clear about failure. So there's ultimate failure, where no matter how many times you try, you will not succeed. And then there are gradations of failure, so it may take you two, three, five, ten times to ultimately succeed. So those are different kinds of experiences.

I can tell you that once ultrasound became available, I switched to using it, because I recognized that – that success without ultrasound may involve many attempts at cannulation that would be failed, but ultimately I might be able to succeed. So not wanting to subject a patient to multiple pokes, I would use ultrasound instead.

[75] Q. Again, I'm going to test your memory. During your training, when you – if you deferred to an experienced surgeon –

A. Not a surgeon.

Q. Not a surgeon. An anesthesiologist, after one of the one-third of the times that you initially missed the femoral stick, did the surgeon – did the experienced surgeon, in your experience – in your recollection – ever miss?

A. The experienced –

MS. CARLSON: Objection. Form.

BY MR. SPILLANE:

Q. In your recollection.

A. Anesthesiologist.

Q. Anesthesiologist. I keep saying that and I apologize. Did they ever miss? After – after you said, hey, Doctor, you have experience, on this one, can you get this one for me, do you ever remember them missing?

A. Yes.

Q. How many times?

A. I can't -- not often.

Q. Not often. Let's talk about total failures. A total failure, I assume, is when you fail to establish a

central line, because you talked about gradations and then total. I assume by total failure, [76] you mean you completely were not able to get a central line.

In your recollection, in your entire practice, both before and after you were certified, about what percentage do you recall being a total failure?

A. In which position?

Q. Let's talk femoral.

A. The problem with lumping people – lumping this as a percentage is that there are certain kinds of patients that I would know would be very likely to have more failure than other kinds. So people who have had catheters in the femoral position before, people who have had surgery, people who have had other kinds of cohesive conditions, people who have abnormalities in the clotting of blood. So there would be one category of people where they would be highly likely to fail.

Then there would be other categories of people that have a likelihood of being less so because they've never had a catheter, because they have no other medical problems. Maybe they're a victim of trauma or something like that and, you know, and they're not obese and they're not – they have on vascular disease. So it's a bit – I worry that by answering your question as you ask it, I'll create a false impression of an overall success or failure rate that really is more patient [77] specific.

Q. Okay. That's fair. And I'm – then I'm going to go back and follow up with something I asked you about Mr. Bucklew. As I understood your answer earlier, is we're unavailable to evaluate whether or not he would have a specific problem with his central veins, because

that's just not the kind of thing you can know with the information you have now. Is that a fair characterization of your earlier answer?

A. Yeah. Yes, I wouldn't be able to know.

Q. So there's no – we don't know if there's a specific risk factor out there like you described, like somebody who had been in – had gotten a central line many times in their femoral or something like that?

A. Well, except again, that now we're talking about a category of a person who is to be executed. So that's a different kind of person. And I – I'm not trained to start intravenouses in people who are going to be executed, and no physician is.

Q. All right. I'm going to go down to – let's see, paragraph 10, where it says: (Reading:) As earlier described, Mr. Bucklew's condition is progressive. Medical records indicate that his – his condition – is it present him with – well, I'm sorry. I'll stop reading until I get to the point. (Reading to [78] self).

Let me back up a little bit and go back to the veins in – in paragraph 6, and then I'll come back to paragraph 10. Is there a likelihood – and I think you discussed this later in your conclusions with Mr. Bucklew. I think it's paragraph E in your conclusions.

A. Paragraph E?

Q. Right.

A. Is it on page 9?

Q. Yeah, page 9 and page 10.

A. Okay.

Q. I think I'll stick with the veins for a minute before I go the next thing. In there, you conclude that

there's a likelihood that Mr. Bucklew could have a blown vein. I think at the end you said, and in patients with veins as poor as Mr. Bucklew's, it is not uncommon for a vein to blow once the fluid begins flowing through the needle.

A. Uh-huh (affirmative).

Q. When you say that, I assume you're talking about the peripheral veins that we discussed earlier in paragraph 6, because you don't really have any knowledge about the other veins he had?

A. Yes, correct.

Q. Okay. Let's go to paragraph C, if we [79] could.

A. On page 9 here?

Q. Yes, sir.

A. Okay.

Q. I'm going to your conclusions here.

A. Uh-huh (affirmative).

Q. It says: (Reading:) Mr. Bucklew's airway is compromised such that his breathing is labored and choking and bleeding occur regularly, even under the least stressful circumstances, and when Mr. Bucklew is fully alerted and capable of taking corrective measures to prevent suffocation (end of reading).

Let's go back to his MRI. I believe you indicated that during his MRI, he took corrective measures by adjusting his breathing pattern when he was required to remain supine for an hour. Is that accurate?

A. He said something to that effect.

Q. And I assume that here, he wouldn't be able to do that if he was supine, because he'd be unconscious. Is that fair?

A. Right.

Q. After he receives – as I assumed it, you said that he would be unable to take remedial measures. (Reading:) As often happens, Mr. Bucklew is able to wake up and take remedial measures to alleviate the feeling of [80] choking and return to normal. When unconscious or reduced consciousness is brought on by sedation, an individual is incapable of becoming fully alert and, therefore, unable to alleviate feelings of air hunger and choking (end of reading).

So, as I understand what you're saying, the difference is that once he is sedated, he would be – not be conscious in the sense that he was during the MRI, so he won't be able to adjust his breathing, and therefore he will have difficulty in breathing that he can't correct like he did during the MRI. Is that fair?

A. Yes.

Q. But that's going to happen after he's sedated and becomes unconscious or, I think you used the word semiconscious, at some point. Is that accurate? Reduced consciousness is the word you used.

A. I'm not sure what you're asking me.

Q. I'm asking, until he becomes unconscious because of sedation, he could make the same adjustments that he made when he was taking the MRI, by adjusting his breathing to compensate for airway difficulties?

A. I'm – I think that the word – I'm going to have to push back on the word consciousness and unconsciousness.

Q. Okay. Tell me what you mean.

[81] A. So I – I think that I'm not sure – I think that those terms have common meanings. And I can tell you that in the anesthetic world, those terms are more vague and more uncertain discriptors. So if you're – at some point when there will be a, you know, decreased brain activity, maybe, that will make it hard for Rusty to make corrective maneuvers for breathing. And I would also say that breathing is a very, and a basic, deep, brain activity, and that shortness of breath is also something that we don't have to cognitively consider.

So at some point, it will be that he will stop breathing before he dies. That – how long that will be, I cannot say, but at some point that will happen. And there will be points before then where he's not dead and he's not – where he's beginning to experience the effects of the pentobarbital, where his ability to control and regulate and adjust his airway will be impaired, although there will still be the experience capable of knowing that he cannot make the adjustment, and will experience it as choking and being – being, you know, very uncomfortable.

Q. All right. And I think this is obvious, but I'm going to ask you a follow-up. When one takes an MRI, one has to keep one's head still or it doesn't work [82] very well, is that fair? Or CAT scan.

A. One has to keep still for periods of time.

Q. Okay.

A. But – but let me say that an MRI goes on repeatedly.

Q. Uh-huh (affirmative).

A. So there can be repeated moments when the image is obtained, and sometimes there's movement and then they say, okay, we're doing it again. And so it goes on like that. So I wasn't there to witness it and it's not recorded as to how difficult it actually was to get the images that they got.

Q. All right. Your paragraphs E, F and G, I would characterize as dealing with the risks of a blown vein. And, again, we're talking about a peripheral vein. Is that fair?

A. Yes.

Q. Okay. And when we were talking about the execution in Oklahoma where you indicated that the Department of Corrections there was wrong as characterizing it as a blown vein, part of your analysis was that the femoral vein is a big vein. Isn't that – that accurate? So that was one of the reasons why you felt they were wrong in saying it was a blown vein?

MS. CARLSON: Objection.

[83] THE WITNESS: Let me say that I did not have the – I was not there.

BY MR. SPILLANE:

Q. Uh-huh (affirmative).

A. At the time, I did not have the autopsy report. I did not know what kind of a needle that they placed. I assumed, as it turned out, wrongly, that they used the right kind of needle in the femoral vein, which would have had a much longer length than they actually used.

And so I thought if you got the – actually got the catheter properly in the vein, that for that vein to blow, is unusual. So either you never got it in there,

which is what I was suggesting, or again, you've just – it got pulled out somehow. But that's not the same thing as a vein blowing.

Q. Right. That's what I wanted to make clear, is they used the wrong catheter and they said that they had a blown vein, but you concluded that was wrong because it was wrong?

A. Well, that was my impression at the time.

Q. Yes. You talked about – a little bit about there being a stage when Mr. Bucklew would not be able to adjust his airway, but wouldn't be fully unconscious in the sense that he would be unaware there [84] was a problem. Were you able to come up with any calculation as to what period of time that would be?

A. Calculation in terms of length of time?

Q. Yes, sir.

A. You know, there's a wide range of time that that could be. You know, that period of when – when the pentobarbital is injected to when there's death. Is that what you're asking?

Q. No. I'm asking, at some point he's going to become unconscious from pentobarbital. With five grams, he's going to become comatose in the sense that he's not aware of breathing, you know, or inability to breathe. And I understood your testimony that before that occurs, there would be a period when he would be unconscious or have reduced consciousness but be still aware of difficulty in breathing. And I was wondering if you had a calculation as to how long that would be?

A. I feel like there are too many parts of it, what you're – what you're saying to me. I mean, are you saying how long it would – maybe just – if you could just break that up, maybe.

Q. All right. Let's start it this way. Dr. Antognini concluded, as you – as you know, that within twenty to thirty seconds, he would be sufficiently reduced in consciousness that he wouldn't be aware of [85] noxious stimuli. Do you remember reading that?

A. I do.

Q. All right. Now let's ask you about that. Do you agree with that analysis? And if so, why, and if not, why?

A. I don't agree with that analysis. That's based upon a dog study from fifty years ago. So I don't think that's a good comparison to what might happen in this case. So I would think that that is a very small number that he's taking there, and my number would be longer than that.

Q. Tell me what your number would be.

A. Well, so it's hard to find literature here. It is, because no one does these as experiments. And so most of the literature is animal based. And so I located a paper recently that was a study on euthanizing horses, from 2015. And in that study, they – what they did is they placed an electroencephalogram, an EEG, on the horse, and they also gave the horse different medications prior to the pentobarbital. They used pentobarbital. So there were other medications. And in their paper, what they looked for is the absence of an electroencephalograph tracing, something called an isoelectric EEG.

Q. And would that be brain death?

[86] A. No.

Q. I mean, would it be indicative – I mean –

A. It's not.

Q. Okay.

A. I think it's a misnomer. They actually call it brain death in this paper, but we understand an isoelectric EEG is not indicative of brain death. But it is indicative of at least electrical silence on the parts of the brain that an electroencephalogram has access to, which is generally kind of surface cortical stuff. So – but in that paper, they record a range of as short as fifty-two seconds and as long as about two hundred and forty seconds before they see isoelectric EEG.

Q. Well, let me stop you there. Isoelectric EEG, that is the complete cessation of the brain making a record that the EEG can – can – can record, is that right?

A. Of what the EEG can see, which is not a lot. So, yes. And – and – so that number is almost twice as long – or more than twice as long as – as the number that you record, which is the short number of twenty seconds.

Q. Twenty to thirty –

A. Yeah.

Q. – as opposed to fifty-two to two forty?

[87] A. Yes.

Q. Okay. Now that was the complete cessation of things that the EEG could measure in the horse. Is there a point where the horse wouldn't be able to feel or recognize pain before that complete cessation?

A. I have no way of knowing. I'm not a horse expert.

Q. Well, how much pentobarbital did the horse get?

A. The dose that they gave the horse was, I think, a hundred milligrams per kilo. And horses are about four hundred kilogram animals. So it would be about forty thousand milligrams of pentobarbital.

Q. So it would be about four milligrams of pentobarbital given to a horse?

A. Yes, close.

Q. Right. And we're going to give five to a human who is probably smaller than a horse.

A. Well, it's the same – it's a similar weight, actually, weight per kilo that would be used in lethal injection.

Q. I'm – I'm sorry, and I probably am just too dense to understand your answer, but how many total grams did the horse get?

A. I don't think you're dense.

[88] Q. Okay.

A. Yeah. So forty thousand milligrams. So that would be forty grams as opposed to five grams.

Q. Oh, you said ten thousand milligrams?

A. Yeah.

Q. I thought I heard four thousand.

A. Yeah, forty thousand.

Q. So around forty thousand? Okay.

A. Forty thousand. It's like on a weight base, it's quite similar to what your – what the Missouri protocol –

Q. I understand now.

A. Yeah.

Q. And you've got a range of fifty-two to forty for complete stoppage of brain activity that could be measured by an EEG? Fifty-two to two forty. I'm sorry, I misspoke.

A. Yeah. Yeah.

Q. And that makes no sense. That would be going backwards.

A. Yeah. And I would add, too, where they had also received two other medications prior to that.

Q. Tell me what those were.

A. Ketamine.

Q. Okay. And that's going to keep him from [89] moving, I think, right? It should.

A. To a certain degree. Not exactly. It does some other things too.

Q. Uh-huh (affirmative).

A. And the other one was something that I don't – I think it was Xylitol or something, which is not something that's used in – in people. It's like it was a veterinary drug that I'm not – might be a benzodiazapene, but I can't swear to it. It's not one that I was familiar with.

Q. All right. I'll just take a second to look at another one of your opinions. I'm going to go to page 9, paragraph B. And there you wrote: (Reading:) Mr. Bucklew's particular medical condition places him at almost certain risk for excruciatingly painful choking complications, including visible hemorrhaging, if he is subjected to execution by means of lethal injection (end of reading).

What did you mean by almost certain risk?

A. A high likelihood. A very, very high likelihood.

Q. Okay. So I took – when you said almost certain risk, I didn't know if certain was my – that it's almost certainly that there's going to be a risk, or it's almost certain that it's going to happen.

[90] A. Almost certain that it's going to happen.

Q. Okay.

A. The risk is certain.

Q. So it's certain that he will have a risk, if he's executed, that he'll have choking and hemorrhaging?

A. Certain that there will be a risk of that, yes.

Q. Okay. That's what I wanted to be sure of. Now earlier, both in paragraph A and when we talked about your article, but specifically in the article, you indicated –

A. Which article? I'm sorry.

Q. The article in the Fordham Law Review.

A. Uh-huh (affirmative).

Q. Where you opined that if he is not executed, he will be strangled by the hemangioma.

A. Okay.

Q. That's certain to happen, right?

A. There's a certain risk of that, yes.

Q. Well, you didn't say in the article it's a certain risk. You said if he wasn't executed, that was going to happen, the hemangioma would eventually strangle him.

A. Well, he may die of some other reason. I [91] don't know.

Q. Assuming he doesn't die of some other reason –

A. Yeah.

Q. – the hemangioma is going to strangle him if we don't execute him?

A. Eventually.

Q. And if we do execute him, there's a risk that he's going to choke because of the hemangioma?

A. Yes.

Q. Okay. At number – excuse me, paragraph H, you talk about lying flat during the execution process increasing the risk to Mr. Bucklew. (Reading:) A second factor that is likely to increase the turbulence of Mr. Bucklew's air flow is the fact that the procedure for execution calls for Mr. Bucklew to lie flat during the execution process (end of reading).

A. Yes.

Q. Why do you conclude that the procedure for execution requires him to lie flat? Protocol to execute is Number 1.

A. If – does it say that they would be – could be in some other position?

Q. I don't think it addresses it, but take a look and see if you see anything there that says he has [92] to lie flat.

A. I – I don't know if it does. I'm not sure that I've – I don't know. Because it's not mentioned here, I don't know if that means it is or it isn't.

Q. Okay. Because –

MS. CARLSON: I would just object in that I don't think this is the complete protocol.

MR. SPILLANE: No, this is the complete OPA –

MS. CARLSON: Correct.

MR. SPILLANE: – protocol that deals with the administration of chemicals.

BY MR. SPILLANE:

Q. And the reason I ask that is you said the procedure calls for Mr. Bucklew to lie flat, in paragraph H, and I was wondering where you got that from.

A. Well, what I have observed in the execution that I observed –

Q. In Georgia?

A. In Georgia. And – and the way that I've seen it depicted in other states, is the gurney is in a position where the inmate is lying flat.

Q. When you conduct a clinical procedure and you administer anesthesiology – anesthesia – have you had cases where it was advantageous to airway management [93] not to have the patient supine?

A. Yes.

Q. What did you do?

A. Well, these were people who couldn't lie flat.

Q. And what did you do?

A. Well, then I used a different technique.

Q. What technique did you use?

A. I would intubate them when they were awake. I wouldn't –

Q. And were they supine when you intubated them?

A. No. I can – sometimes, I've intubated people in a semi-recumbent position. But because they can't receive anesthesia, not because they can.

Q. That's what I'm asking, though. I mean, there's no physical reason why one can't administer an anesthesia to someone that's not supine?

A. It's more difficult when they're sitting up, generally, for induction of an anesthetic. But maybe I should clarify between securing an airway –

Q. Uh-huh (affirmative).

A. – and the induction of an anesthetic.

Q. Yes.

A. So to secure an airway, it's much easier to [94] do it when a person is supine and when you're at the head of the bed. But sometimes, because of co-existing medical conditions, or the constraints of space, it can't be done in that way. But that's certainly the preferred way.

Sometimes patients are so sick and unstable that they can't lie flat because it's too uncomfortable for them, they are short of breath. And so in those situations, too, the general induction agents would cause their blood pressure to dangerously fall and could even, you know, cause other medical problems.

So the safer thing there is to approach it in a different fashion, which would be sometimes from the side, sometimes sitting up, and not anesthetized in a way that one would otherwise do when a person was well and able to be anesthetized in a more conventional body position.

Q. Is there any physical reason why a person has to be supine to receive thiopental or pentobarbital and have it be effective?

A. In an execution?

Q. In any.

A. Is there any particular reason why –

Q. Wouldn't it work just as well if they were sitting up if they were injected with pentobarbital?

[95] A. Will work in what – what are you talking about, work what? What are you trying –

Q. Suppose you had a clinical patient that it was necessary for reasons of – for some reason that could not lay supine, and you were going to use, back in the old days, sodium thiopental, or now, for some particular reason, pentobarbital or another barbiturate on him, would the chemical still have the same effect if the man was sitting up?

A. It wouldn't – I'm trying to answer your question.

Q. Okay.

A. I – I recognize the problem here is that you're now talking about – the reason why a person can't lie flat would be what would be important here. It's not that they just choose not to. It's that they can't because of a medical reason. So in that case, I might not use pentobarbital at all, or something akin to that, because pentobarbital is no longer available, or sodium thiopental, anyway, is no longer available. So I might not use, you know, the equivalent of that in that position because it's a different – it's a different kind of case.

Q. I think that's about the best answer I'm going to get, sir, so I'm going to move on.

[96] A. Okay.

Q. All right. We're going to go to O, which is on page 12. And your final conclusion is: (Reading:) In conclusion, it is my professional, medical opinion that Mr. Bucklew, as a result of his particular medical condition and atypical anatomy of his airway, will suffer excruciating pain and prolonged suffocation if he is executed by lethal injection (end of reading).

Okay. First question, in making that conclusion, does that conclusion assume that peripheral veins are going to be used to infuse the pentobarbital – for setting the line that will be used for the pentobarbital?

A. As opposed to?

Q. As opposed to a femoral?

A. I don't think it's material. That part of it, anyway.

Q. All right. Does the fact that he is – that – your opinion, in paragraph H, assume that the protocol requires him to be supine? If he's not supine, does that change your opinion?

A. No.

Q. So as I understand it, what's left is your opinion – is based on he has a difficult airway, and even if a femoral vein is used, and even if he's not [97] supine, and he's injected with pentobarbital, he will still have choking, excruciating pain and prolonged suffocation?

A. Yes.

Q. Why?

A. Because his airway narrowing is of a fixed nature. And what he tells me is that he experiences

shortness of breath at all times, worse at some times than others. And I think that if they are going to use a femoral vein – we can take this in maybe two parts. If they're going to use a femoral vein, I'm going to surmise that that would not be their first choice.

So they are going to start, first, by trying to start veins in his arms, and they're going to fail. And then they're going to fail on one arm, after poking several times. Then they'll switch to the other arm. Then they'll fail again. And this will go on for a period of time.

Q. Is that what you would do if this was your patient and you were a board-certified anesthesiologist, fail in both arms?

A. This is not a patient.

Q. I'm asking, if this was a – if you had a patient with peripheral veins like this, would you fail in both arms before you went to the femoral?

[98] A. This is not a patient. So I'm just trying to –

Q. If you had a patient, hypothetical, that had peripheral veins the same as Mr. Bucklew had, would you fail in both arms and then go to a femoral?

MS. CARLSON: Objection. Calls for speculation.

THE WITNESS: I don't know how they're going to do it, so I can't compare what they're going to do. But I don't know what decisions they make, unless it says – it seems to say here that they're trying in the arms before they're trying in the femoral.

BY MR. SPILLANE:

Q. Well, let's go back and take a look. I'm looking at B-1 – oh, I'm sorry. I picked up the wrong paper. I'm looking at C-1. (Reading:) Medical personnel may

insert the primary IV line as a peripheral line or as a central venous line (end of reading).

So that doesn't seem to indicate they necessarily have to do a peripheral first.

A. Well, it's not – it's not specified here.

So I would be – I would think that they would start with the peripheral.

Q. Why?

[99] A. It's easier.

Q. Is that what you would do in a patient?

A. Yes. It's easier.

Q. And you would miss in both arms?

A. It depends. Sometimes I have done that. I mean, I can't always know until I try.

Q. Okay.

A. So that's what – that's what I believe that they would do.

Q. I'm going to flip back to the Gissendaner case – Gissendaner case, the Henry case and the Davis case. I'm just asking a question now. You don't need to look at anything.

A. Okay.

Q. Where in each case you gave an opinion that there would be an excruciating death. One of them because of – in the Henry case, because of two risk factors for coronary disease. In the Gissendaner case, because she was female, overweight, and had a high BMI. And in the Davis case, because he would have an acute attack of porphyria. Do you believe that you were right in any of those cases?

MS. CARLSON: Objection to form.

THE WITNESS: Right in what way?

BY MR. SPILLANE:

[100] Q. Right in predicting that those things would happen.

A. That was my opinion, yes.

Q. Those things didn't happen, though, did they?

A. We don't know that.

Q. Well, we know that Mr. Davis didn't convulse and vomit on he [sic] gurney, as far as anybody reported.

A. We don't know what he – well, first of all, as we discussed earlier, the reports are very imperfect. So we don't actually know what happened. So I – I can't comment on whether those things happened or they didn't happen.

Q. And same thing with – with Ms. Gissendaner. As far as we know, she wasn't suffering excruciating pain when she was singing Amazing Grace.

A. Well, I don't know when the singing occurred with respect to when the injections began, or any other part of it, so I don't know.

Q. Okay. And let's go back to Mr. Henry. As far as we know, he didn't have a coronary event, based on his two risk factors, during the execution.

A. How would we know that he didn't?

Q. Well, there's no evidence of it. Do you [101] have any reason to believe that he did?

A. I – he did not have an autopsy. He did not have electrocardiographic monitoring. He was not questioned during – or there was no other way to feed back

to know whether or not he was experiencing those things at all. So I would say that I – that none of these executions refute my – my claims or my concerns.

Q. Let me ask you this. Is there something different about Mr. Bucklew than those three? Or –

A. Different in what way?

Q. In – I mean, here, as far as I can tell, you're – you're saying that because he has a difficult airway, he's going to choke and bleed, and he's going to suffer an excruciating execution. Is – is there some way this is different than those other three cases where you predicted an excruciating execution?

MS. CARLSON: Object. Objection. Form.

THE WITNESS: They're all different. They're all different cases with different kinds of medical problems. So they're all different.

MR. SPILLANE: Okay. That's all I have.

Thank you.

MS. CARLSON: Are you finished?

MR. SPILLANE: Yes, ma'am.

MS. CARLSON: I just have a few questions. [102] I'll be – I'll be relatively brief.

EXAMINATION

BY MS. CARLSON:

Q. So – so, Dr. Zivot, I think you testified that – I'm actually not sure you testified about this, so I'll just ask you. You were trained as an anesthesiologist, correct?

A. Yes.

Q. Did you have a secondary specialty when – during your training?

A. Yes.

Q. And what was that?

A. Critical care medicine.

Q. And during your critical care medicine training, did that give you sort of a reason to do more central lines than you think an average board-certified anesthesiologist might do?

A. Yes.

Q. And do you have colleagues who are board-certified anesthesiologists?

A. Yes.

Q. And have any of those colleagues ever asked you to help them with a – to do a central line?

A. Yes.

Q. And do you have any knowledge of why [103] they've asked you to help them?

A. Because they lacked the experience, or they had done it so long ago that they didn't feel comfortable anymore to be able to do it at the time.

Q. And I understand from the testimony that you've provided affidavits in other cases involving prisoners who are sentenced to death, is that correct?

A. Yes.

Q. And are these – the three cases, I believe, that Mr. Spillane asked you about, are these the only three people who have reached out to you to work on their case –

A. No.

Q. – involving lethal injection?

A. No.

Q. About how many other people could you say have reached out to you to provide an affidavit?

A. Oh, about maybe ten times, fifteen times.

Q. And you've decided not – not to provide an affidavit in those cases?

A. Correct.

Q. And any sort of basic reasoning as to why, in those cases, you decided not to?

A. There was no obvious, you know, medical concern that I could glean from, you know, review and [104] discussion that I thought was germane, you know, to the case, to the – to the type of lethal injection contemplated.

Q. And have you ever – do you have any knowledge of anybody who has been executed who had Mr. Bucklew's condition of cavernous hemangioma?

A. No.

MS. CARLSON: If you can just give us one second, and then I might be done.

(Off the record)

MS. CARLSON: I have no further questions.

MR. SPILLANE: I had a follow-up in light of the cross.

RE-EXAMINATION

BY MR. SPILLANE:

Q. In your earlier testimony, you indicated that all lethal injections are necessarily – are necessarily

unnecessarily cruel. And I hate to use a word with a negative in front of it and a positive in front of it. But in light of that, would it be possible for you ever to give testimony that a – in a particular case that a lethal injection wouldn't be – would not be unnecessarily cruel?

A. I understand that – that the Court has a different view on my view. So, you know, the cases that [105] you cite, I think all those situations were germane and the Court saw otherwise. I've said before that I think that lethal injection by design will be cruel because of the inability to know the things that the State claims that it can know. And that's my opinion.

MR. SPILLANE: Okay. Thank you, Doctor.

MS. CARLSON: Nothing further.

THE COURT REPORTER: And what about signature? Is the doctor going to read and sign?

MS. CARLSON: Yes.

THE COURT REPORTER: Okay. (To Ms. Carlson:) And do I send it to you?

MS. CARLSON: Sure.

THE COURT REPORTER: To send to the doctor.

MS. CARLSON: Yes.

THE COURT REPORTER: And if you don't mind, just where I can record your transcript orders. That would be quicker than filling out a form.

MS. CARLSON: Sure.

THE COURT REPORTER: Yeah, just –

MR. SPILLANE: Yes, I would like a transcript.

THE COURT REPORTER: Okay.

MR. SPILLANE: I would like it in pdf.

THE COURT REPORTER: Okay. Okay. And then [106] it's e-mailed to you?

MR. SPILLANE: E-mailed to me, please.

MS. CARLSON: Yeah, same.

THE COURT REPORTER: The same thing?

MS. CARLSON: Yeah.

(Deposition concluded at 3:30 p.m.)

MISSOURI DEPARTMENT OF CORRECTIONS PREPARATION AND ADMINISTRATION OF CHEMICALS FOR LETHAL INJECTION

A. Execution Team Members

The execution team consists of department employees and contracted medical personnel including a physician, nurse, and pharmacist. The execution team also consists of anyone selected by the department director who provides direct support for the administration of lethal chemicals, including individuals who prescribe, compound, prepare, or otherwise supply the chemicals for use in the lethal injection procedure.

B. Preparation of Chemicals

Medical personnel shall prepare the lethal chemicals. The quantities of these chemicals may not be changed without prior approval of the department director. The chemicals shall be prepared and labeled as follows:

1. Syringes 1 and 2: Five (5) grams of pentobarbital (under whatever name it may be available from a manufacturer, distributor or compounding pharmacy), 100 ml of a 50 mg/mL solution, shall be withdrawn and divided into syringes labeled "1" and "2."
2. Syringe 3: 30 cc of saline solution.
3. Syringes 4 and 5: Five (5) additional grams of pentobarbital (under whatever name it may be available from a manufacturer, distributor or compounding pharmacy), 100 ml of a 50 mg/mL solution, shall be withdrawn into syringes labeled "4" and "5."
4. Syringe 6: 30 cc of saline solution. This syringe is prepared in the event that additional flush is required.

C. Intravenous lines

1. Medical personnel shall determine the most appropriate locations for intravenous (IV) lines. Both a primary IV line and a secondary IV line shall be inserted unless the prisoner's physical condition makes it unduly difficult to insert more than one IV. Medical personnel may insert the primary IV line as a peripheral line or as a central venous line (e.g., femoral, jugular, or subclavian) provided they have appropriate training, education, and experience for that procedure. The secondary IV line is a peripheral line.

2. A sufficient quantity of saline solution shall be injected to confirm that the IV lines have been properly inserted and that the lines are not obstructed.

D. Monitoring of Prisoner

1. The gurney shall be positioned so that medical personnel can observe the prisoner's face directly or with the aid of a mirror.

2. Medical personnel shall monitor the prisoner during the execution.

E. Administration of Chemicals

1. Upon order of the department director, the chemicals shall be injected into the prisoner by the execution team members under the observation of medical personnel. The lights in the execution support room shall be maintained at a sufficient level to permit proper administration of the chemicals.

2. The pentobarbital from syringes 1 and 2 shall be injected.

3. The saline solution from syringe 3 shall be injected.

4. Following a sufficient amount of time for death to occur after the injection of syringe 3, medical personnel shall examine the prisoner to determine if death has occurred. If the prisoner is still breathing, the additional five grams of pentobarbital will [sic] injected from syringes 4 and 5 followed by the saline from syringe 6.

5. At the completion of the process and after a sufficient time for death to have occurred, medical personnel shall evaluate the prisoner to confirm death. In the event that the appropriate medical personnel cannot confirm that death has occurred, the curtain shall be reopened until an appropriate amount of time has passed to reevaluate the prisoner.

F. Documentation of Chemicals

1. Medical personnel shall properly dispose of unused chemicals.

2. Before leaving ERDCC, all members of the execution team present at the execution shall complete and sign the "Sequence of Chemicals" form thereby verifying that the chemicals were given in the order specified in this protocol.

3. Before leaving ERDCC, one of the medical personnel present at the execution shall complete and sign the "Chemical Log" indicating the quantities of the chemicals used and the quantities of the chemicals discarded during the execution.

4. Within three days of the execution, the ERDCC warden shall submit the Sequence of Chemicals

and the Chemical Log to the director of the Division of Adult Institutions (DAI). The DAI division director and the department director shall review the records. If they do not detect any irregularities, they shall approve the two documents. If any irregularities are noted, the DAI division director shall promptly determine whether there were any deviations from this protocol and shall report his findings to the department director.

IN THE UNITED STATES DISTRICT COURT
WESTERN DISTRICT OF MISSOURI

Case No. 4:14-CV-8000-BP

RUSSELL BUCKLEW,

Plaintiff,

vs.

GEORGE A. LOMBARDI, DAVID A. DORMIRE and TERRY RUSSELL,

Defendants.

RULE 26(a)(2) EXPERT REPORT

SUPPLEMENTAL EXPERT REPORT OF JOEL B. ZIVOT, M.D.

I, JOEL B. ZIVOT, being of sound mind and lawful age, hereby state under penalty of perjury as follows:

I. QUALIFICATIONS

A. Education

1. I received my Doctor of Medicine from the University of Manitoba, Canada, in 1988. From 1989-1993, I was a resident in Anesthesiology at the University of Toronto, Department of Post Graduate Medical Education, and from 1993-1995, I completed an additional residency in Anesthesiology and a Fellowship in Critical Care Medicine at the Cleveland Clinic Foundation, Department of Anesthesiology in Cleveland, Ohio.

B. Professional Licenses, Certifications and Memberships

1. I hold an active medical license from the State of Georgia and have held unrestricted medical licenses in Ohio, the District of Columbia, Michigan, and the Canadian provinces of Ontario and Manitoba. I also hold an active license to prescribe narcotics and other controlled substances from the federal Drug Enforcement Administration (DEA).

2. I hold board certification in Anesthesiology from the Royal College of Physicians and Surgeons of Canada and the American Board of Anesthesiology. I am also board certified in Critical Care Medicine from the American Board of Anesthesiology.

C. Professional Experience

1. I have served as the Medical Director of the Cardio-Thoracic Intensive Care Unit and the Fellowship Director for Critical Care Medicine at Emory University Hospital. I am an Associate Professor of Anesthesiology and Surgery at the Emory University School of Medicine and an adjunct Professor of Law at Emory University Law School. A complete list of my qualifications and publications authored in the last ten years is provided in my curriculum vitae attached as Exhibit A to this report.

2. I have practiced anesthesiology and critical care medicine for 22 years, and, in that capacity, I have personally performed or supervised the care of more than 42,000 patients.

3. In the course of my career, I have regularly performed or supervised the anesthesia care of numerous patients whose airways would be termed "difficult" or "very difficult" according to the Mallampati

Classification. Airway evaluation includes this prediction score on securing the airway, where Mallampati I is predicted to be straightforward and Mallampati IV is predicted to be very difficult.

4. I am, by reason of my experience, training, and education, an expert in the fields of anesthesiology and critical care medicine. The opinions that follow are within my field of expertise, and are stated to a reasonable degree of medical and scientific certainty unless otherwise noted.

5. A complete list of the cases in which I have given expert testimony is attached as Exhibit B to this report.

D. Compensation

1. My compensation in this matter is as follows: (1) expert fee of $400/hour; (2) 15 hours of record and document review, report writing, and consultation with counsel since October 2016; and (3) approximately 12 hours of travel and examination of Mr. Bucklew with an estimated cost of $3000.00.

OPINIONS IN RUSSELL BUCKLEW V. LOMBARDI ET AL., 4:14-CV-8000-BP

II. SUBJECT OF OPINIONS

A. I have been asked by Mr. Bucklew's attorneys in the above-referenced case to render an expert opinion regarding the risks and complications stemming from Mr. Bucklew's deteriorating medical condition—specifically the growing obstruction in Mr. Bucklew's airway—on the execution of Mr. Bucklew by means of lethal injection.

B. As a medical doctor, I am ethically prevented from prescribing or proscribing a method of executing a person. I am bound by these ethics, and am

prohibited from assessing whether a different form of execution would be feasible. Therefore, while I can assess Mr. Bucklew's current medical status and render an expert opinion as to the documented and significant risks associated with executing Mr. Bucklew under Missouri's current Execution Procedure, I cannot advise counsel or the Court on how to execute Mr. Bucklew in a way that would satisfy Constitutional requirements.

C. In developing my opinion, and in addition to the materials I reviewed in connection with my declaration dated May 8, 2014, I have considered the following: (1) The report of medical imaging performed at Barnes-Jewish Hospital dated December 23, 2016 [Exhibit C]; (2) Mr. Bucklew's December 19, 2016 MRI and CT imaging from Barnes-Jewish Hospital at Washington University in St. Louis Missouri [Exhibit D]; (3) my own in-person examinations of Mr. Bucklew conducted on May 12, 2014 and on January 8, 2017; (4) Mr. Bucklew's medical records; (5) the Missouri Department of Corrections Procedure for Execution (the "Execution Procedure"); and (6) the Declaration of Joseph F. Antognini dated November 8, 2016.

III. SUMMARY OF OPINIONS

A. Mr. Bucklew suffers from a debilitating, incurable, and progressive condition known as cavernous hemangioma. This condition occurs sporadically and congenitally in the population and not as a consequence of any action on the part of Mr. Bucklew. This condition has caused large diffuse, vascular (blood-filled) tumors to form and grow in Mr. Bucklew's nasal cavity, face, and throat. Cavernous hemangiomas in the nasal cavity, face, and throat are a medically recognized cause of death by suffocation.

B. As a result of the hemangiomas located in Mr. Bucklew's nasal cavity, face and throat, and to a lesser-degree residual scar tissue from a past tracheostomy procedure, Mr. Bucklew's airway is medically termed a "very difficult" airway. Specifically, on the Mallampati four-point scale, Mr. Bucklew's airway is a Mallampati class IV. It is highly likely that Mr. Bucklew, as a result of having a Mallampati class IV airway, would require a surgical airway (i.e., tracheostomy) in order to safely undergo a surgical procedure requiring a general anesthetic.[1] Mr. Bucklew's airway is so compromised that it is highly unlikely that he could be safely intubated without experiencing a serious hemorrhagic event within his throat.

C. Because of the degree to which Mr. Bucklew's airway is compromised by the hemangiomas, the anatomical mechanics of airflow and breathing, and the particular psychological and physical effects of lethal injection, it is highly likely that Mr. Bucklew would be unable to maintain the integrity of his airway during the time after receiving the lethal injection and before death.

D. Contrary to Dr. Antognini's assertion, the effect of pentobarbital injection as outlined in the Execution Procedure is highly unlikely to be experienced as "rapid unconsciousness followed by death." In my

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[1] Note that while I generally object to Dr. Antognini's comparison between the medical act of general anesthesia and the non-medical act of lethal injection, for the limited purpose of this opinion I refer to the necessity of a tracheotomy in order to undergo general anesthesia only as a frame of reference for the degree to which Mr. Bucklew's airway is compromised. In short, even in a room full of doctors, Mr. Bucklew could not safely lose consciousness by way of sedation without the immediate capability of performing a surgical airway.

professional medical opinion, the effects of such an injection are highly unlikely to be instantaneous and the period of time between receiving the injection and death could range over a few minutes to many minutes. My view here is supported both by my own professional knowledge of how chemicals of this type are likely to exert their effects in the body as well as by the terms of Missouri's Execution Procedure, which calls for a waiting period of five minutes after the first two pentobarbital injections, before examining the inmate to determine whether death has occurred. The Execution Procedure expressly acknowledges that the first two Pentobarbital injections may not have caused death within five minutes, in which case a second round of injections is required.

E. As a result of his inability to maintain the integrity of his airway for the period of time beginning with the injection of the Pentobarbital solution and ending with Mr. Bucklew's death several minutes to as long as many minutes later, Mr. Bucklew would be highly likely to experience feelings of "air hunger" and the excruciating pain of prolonged suffocation resulting from the complete obstruction of his airway by the large vascular tumor.

F. As a result of this prolonged experience of suffocation, it is highly likely that Mr. Bucklew will struggle to breathe [sic] a struggle apparent as convulsive movements—and as a result, given the highly friable and fragile state of the tissue of Mr. Bucklew's mouth and airway, he will likely experience hemorrhaging and/or the possible rupture of the tumor. The resultant hemorrhaging will further impede Mr. Bucklew's airway by filling his mouth and airway with blood, causing him to choke and cough on his own blood during the lethal injection process. It is not

necessary that Mr. Bucklew be fully conscious in order to experience the excruciating pain and feeling of prolonged suffocation. Also, regardless of whether Mr. Bucklew is fully conscious, bleeding in his mouth and throat will cause choking and coughing and the coughed blood will be visible to viewers of the execution procedure.

G. In summary, I conclude with a reasonable degree of medical and scientific certainty that it is highly likely that Mr. Bucklew, given his specific congenital medical condition, cannot undergo lethal injection without experiencing the excruciating pain and suffering of prolonged suffocation, convulsions, and visible hemorrhaging.

IV. OBJECTIVE FACTUAL BASES FOR OPINIONS

A. A patient's airflow during breathing will typically be described as either being laminar or turbulent. Laminar flow is a smooth, orderly, linear flow of air with low resistance and is experienced as "easy" breathing by the patient. Turbulent flow, by contrast, is disorganized, has high resistance, and is experienced by the patient as "difficult" breathing. Four factors impact whether airflow is laminar or turbulent: (1) aperture or diameter of the airway, (2) length of the airway, (3) velocity of the flow, and (4) density of the gas. Of these four factors, the most pertinent in this case is the aperture of the airway. The smaller or more obstructed a patient's airway becomes, the more turbulent the flow of air becomes. This aperture narrowing is experienced by the patient as an inability to easily breathe. When a patient feels as though he cannot take a breath, the usual reaction is to breathe harder and faster to take in more air. This triggers the third factor listed above: "velocity of the flow." The

faster a patient breathes, the more turbulent the flow becomes, particularly through a narrow or obstructed airway.

B. Diameter of the airway, or aperture, can be further understood with reference to the Mallampati classification used to describe how "difficult" it is to secure an airway in the setting of a medical procedure. An airway can be difficult because of anatomical abnormalities, both congenital and acquired. In this case difficulty in maintaining airway patency is a direct consequence of cavernous hemangiomas in Mr. Bucklew's airway.

C. In clinical cases where a patient has a Mallampati IV airway, an anesthesiologist must proceed with extreme caution and implement specialized precautions, such as creating a surgical airway via tracheotomy, to maintain the integrity of the patient's airway in order to safely prepare a patient for any procedure where the patient is sedated and unable to assist in supporting his or her own ventilation. This is supported by Mr. Bucklew's own medical records, referenced by Dr. Antognini, in which it was noted that Mr. Bucklew underwent a tracheotomy in connection with surgical procedures under general anesthesia [Decl. of Antognini; PC486].

D. Cavernous hemangioma is a condition that results in vascular lesions consisting of abnormally dilated blood vessels. These blood vessels form cavern-like pockets, i.e. vascular tumors or hemangiomas, in which blood pools. The pockets then leak, or hemorrhage, as a result of defects in the walls of the blood vessels. The lesions can vary in size, and are linked to varying side effects including seizures, stroke symptoms, hemorrhages, and headaches, depending upon the size and location of the particular lesion, and the relative

strength of the walls of the affected blood vessels. In addition, symptoms may resolve or reappear over time as the vascular tumor changes in size as it leaks and reabsorbs blood.

E. While the vascular tumors are often benign, in certain cases, such as Mr. Bucklew's, the progressive condition is life-threatening as it eventually leads to obstruction of the patient's airway leading to asphyxiation and death.

V. RECORD EVIDENCE SUPPORTING OPINIONS

A. Historic Medical Records

1. Mr. Bucklew's medical records indicate that, since birth, he has suffered from cavernous hemangioma resulting in vascular tumor formations in his face, brain, and throat. [Bates PC202]. The specific hemangioma at issue affects Mr. Bucklew's nasal cavity, face, right eye, and airway—approaching both the base of Mr. Bucklew's skull and his carotid artery. [PC202]. The location of Mr. Bucklew's hemangioma has resulted in a grossly enlarged uvula and narrowing of his airway resulting in generally turbulent air flow, which Mr. Bucklew experiences as shortness of breath or difficulty breathing.

2. Mr. Bucklew's condition is inoperable due to the severe risk of blood loss during surgery. Furthermore, due to the large size of the hemangioma, Mr. Bucklew's condition has been found to no longer be amenable to sclerotherapy [PC2257].

3. As a result of his condition, Mr. Bucklew has experienced "excruciating" pain and numerous hemorrhagic events, including bleeding from the face and mouth, necessitating emergency trips to the medical

unit in which pressure with gauze was applied in order to slow the bleeding. [see e.g. PC2238, PC2227, PC2506].

4. As previously described in my Supplemental Declaration dated December 4, 2015, Mr. Bucklew's tumors are painful, easily bleed, and spontaneously hemorrhage. Mr. Bucklew has described past hemorrhages as sometimes "squirting" blood, while other times presenting as a "slow leak." [PC103].

5. Specifically with respect to Dr. Antognini's discussion of Mr. Bucklew's procedures between 2000 and 2003, Mr. Bucklew's records confirm that he underwent procedures in that time period that required general anesthesia. Records of a procedure that occurred in 2000, however, explicitly state that Mr. Bucklew received a tracheotomy, a procedure undertaken in cases of difficult airways for purposes of maintaining the integrity of the airway while a patient is under anesthesia. [PC486]. Contrary to Dr. Antognini's apparent conclusion that Mr. Bucklew's airway does not warrant any special considerations, Mr. Bucklew's records show that special procedures were undertaken to account for Mr. Bucklew's difficult airway.

B. Findings of In-Person Examinations

1. The tumors obstructing Mr. Bucklew's airway are so large that Mr. Bucklew is no longer able to lie down flat on his back while sleeping without suffocating. On January 8, 2017, Mr. Bucklew explained that in order to breathe while sleeping, he must sleep on his right side with his head elevated at roughly a 45 degree angle. This position allows Mr. Bucklew to sleep without his airway becoming obstructed by the turn in his airway and his grossly enlarged uvula.

2. Even with the above precautions, Mr. Bucklew explained that his uvula occasionally gets "stuck" in his throat while he sleeps, causing him to wake up feeling as though he is choking and unable to breathe. In addition, the above precautions do not prevent Mr. Bucklew's tumors from leaking or hemorrhaging during the night. When asked to describe his typical morning, Mr. Bucklew explained that the first thing he does each morning is to clean off the blood on his face that leaked from his nose and mouth while he slept.

3. During my examination of Mr. Bucklew on January 8, 2017, I noted several large hemangiomas visible in Mr. Bucklew's hard and soft palate, lip, nose, and uvula. Of particular relevance to the aperture of Mr. Bucklew's airway were the grossly enlarged uvula and the easily visible hemangiomas on his hard and soft palates. Mr. Bucklew also has an easily visible hemangioma growing out of his upper lip and over his mouth. This tumor has enlarged in size since my prior examination of Mr. Bucklew.

4. In addition to the hemangiomas compromising Mr. Bucklew's airway, I also observed that Mr. Bucklew has residual scarring over the front of his throat caused by the past tracheostomy procedure. Mr. Bucklew explained that the scar tissue is tethered to his trachea in a way that makes it difficult to breathe and swallow. This scar tissue contributes to the obstruction of Mr. Bucklew's airway and increases the turbulence of the air flow through Mr. Bucklew's airway.

5. I also observed that Mr. Bucklew had residual loss of feeling in the right side of his face, causing him to be unable to completely close his right eye.[3]

6. I also observed during my examination that Mr. Bucklew has very poor veins in both of his arms. Poor venous visualization suggests that establishing intravenous access in the setting of lethal injection will be potentially difficult, prolonged, and painful to Mr. Bucklew.

7. Also during my January 8, 2017 examination of Mr. Bucklew, I asked him to describe his experience during the MRI Procedure on December 19, 2016. He reported experiencing extreme discomfort during the procedure. In order to maintain the integrity of his airway while lying flat, Mr. Bucklew was forced to consciously alter his breathing pattern, and swallow repeatedly to keep his uvula from settling and completely obstructing his airway, in order to avoid choking.

8. Furthermore, as noted in my October 13, 2015 report, the tissue of Mr. Bucklew's airway has become increasingly fragile over time. In fact, Mr. Bucklew's airway is now so fragile that simply touching it causes

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[3] Dr. Antognini asserts, without having examined Mr. Bucklew, that Mr. Bucklew definitively has not suffered a stroke as a result of his condition. He bases his assertion on the fact that Mr. Bucklew "has recently been observed to speak normally and walk without difficulty." In my professional medical opinion, Dr. Antognini's assertion is based upon insufficient medical evidence. The residual effects of a stroke are not limited to speech impairment or decreased ability to walk, and the absence of these residual effects is not definitive proof that an individual has not suffered a stroke. Other symptoms, such as Mr. Bucklew's inability to fully control the muscles of the right side of his face, can be indicative of stroke.

the tissue to bleed. As most recently reported by Mr. Bucklew on January 8, 2017, the tissue bleeds so easily that it even bleeds while he is sleeping.

9. My finding that the tissue of Mr. Bucklew's airway is extremely fragile is not inconsistent with my suggestion that Mr. Bucklew undergo a clinical examination that would call for a bronchoscopy or use of a Glidescope. [Decl. Antognini, para. 17]. These procedures are intended to be minimally invasive, and a skillful physician would endeavor to insert the tube with an attached camera carefully into the airway without touching the fragile tissue. However, given Mr. Bucklew's present condition and its progressive nature, as of this date it is my professional medical opinion that Mr. Bucklew's airway is so compromised, and the tissue so fragile, that even the undertaking of a minimally invasive evaluation of his airway would pose very high likelihood of airway bleeding and subsequent loss of the airway that could be fatal.

10. As already described, Mr. Bucklew's condition is progressive. As of April 2012, Mr. Bucklew's medical records indicate that his condition did not appear to place him at risk of life-threatening hemorrhage [PC2257]. My examination of Mr. Bucklew on January 8, 2017, as well as my review of the recent MRI and CT imaging report forms the basis for my conclusion that at the present time, Mr. Bucklew is at risk of life-threatening hemorrhage, particularly under the conditions imposed by Missouri's Execution Procedure.

C. December 19, 2016 Imaging and Report

1. The report generated in connection with the MRI imaging conducted on December 19, 2016, confirms my findings that Mr. Bucklew has a large hemangioma impacting his hard and soft palate, lip, nose,

uvula, and throat. Specifically, the report describes the relevant portions of the hemangioma as continuing to impact his airway to a significant degree. The hemangioma is reported as smaller by 1/15th of an inch in a region that was not directly within the airway. This difference is without significance and will have no impact in lessening the serious risk to Mr. Bucklew in the setting of his planned execution as outlined above.

2. As already described, Mr. Bucklew's condition is progressive and his airway continues to be compromised. This finding is confirmed both by recent imaging studies and my own personal examination and evaluation of Mr. Bucklew on two separate occasions.

VI. CONCLUSION AND OPINIONS

A. It is my professional opinion that Mr. Bucklew suffers from a severe and life-threatening form of cavernous hemangioma. Given the nature of Mr. Bucklew's condition, it is my medical opinion that the vascular tumors that obstruct Mr. Bucklew's airway will present a permanent threat to his breathing and that life threatening choking episodes will occur on an ongoing basis. When these choking episodes occur, they will be associated with hemorrhaging to a varying degree that will be easily visible by any observer.

B. Mr. Bucklew's particular medical condition places him at almost certain risk for excruciatingly painful choking complications, including visible hemorrhaging, if he is subjected to execution by means of lethal injection.

C. Mr. Bucklew's airway is compromised such that his breathing is labored, and choking and bleeding occur regularly, even under the least stressful circumstances and when Mr. Bucklew is fully alert and

capable of taking corrective measures to prevent suffocation.

D. While it is true that Mr. Bucklew is able to go to sleep after taking certain precautionary measures—including positioning himself to maintain a certain head elevation—without asphyxiating, it is not accurate to compare the experience of sleep with the unconsciousness brought on by sedation. When a person begins to choke while sleeping, as often happens to Mr. Bucklew, he is able to wake up and take remedial measures to alleviate the feeling of choking and return to a normal pattern of breathing. When unconsciousness, or reduced consciousness, is brought on by sedation, an individual is incapable of becoming fully alert and ambulatory and is therefore unable to alleviate the feelings of "air hunger" and choking.

E. The Execution Procedure calls for a minimum of three separate injections, to be administered by "non-medical" personnel. As noted above, Mr. Bucklew is observed to have very poor veins in both of his arms. Mr. Bucklew's veins are so poor that even a qualified and experienced medical professional would have difficulty finding a vein of the proper and necessary quality for large volume intravenous injection as required in the Missouri lethal injection protocol. In these instances, it is frequently necessary to make more than one attempt to place the needle in a viable vein. However, a medical professional will typically start by trying to place the needle in the best available vein. Each subsequent attempt is even less likely to result in the needle being inserted into a suitable vein, because each successive vein will necessarily appear less viable than the one before. The consequences of placing a needle in an inadequate vein can be catastrophic, and in patients with veins as poor as Mr.

Bucklew's, it is not uncommon for a vein to "blow" once the fluid begins flowing through the needle.

F. The risk of a vein blowing is even greater where, as here, the chemical being injected is a very strong "base." Certain chemicals can be characterized as either basic or acidic. Strong bases, just like strong acids, are extremely corrosive. The extremely corrosive properties of the Pentobarbital solution called for in the Execution Procedure make it highly likely that Mr. Bucklew's vein would blow during the injection process.

G. The adequacy of Mr. Bucklew's veins is related to the concerns with respect to his airway. Mr. Bucklew is extremely likely to experience an incremental increase in stress with each unsuccessful attempt to find a vein. A blown vein would also greatly increase Mr. Bucklew's stress. As previously explained, the lethal injection procedure itself is naturally a stressful experience. In an individual with Mr. Bucklew's extremely atypical airway, this increase in stress will manifest as increased difficulty breathing because stress typically causes an individual to breathe harder and faster. The increased velocity of air moving through Mr. Bucklew's airway will result in more turbulent airflow, which Mr. Bucklew will experience as an inability to breathe. Therefore, even prior to receiving the lethal injection, Mr. Bucklew is highly likely to experience greatly increased pain and discomfort and a feeling of "air hunger" greater than that which he experiences in the ordinary course of his day. And contrary to his ordinary experience, Mr. Bucklew will not be able to take remedial measures to normalize his breathing.

H. A second factor that is likely to increase the turbulence of Mr. Bucklew's airflow is the fact that the

procedure for execution calls for Mr. Bucklew to lie flat during the execution process. However, when forced to lie completely flat, the aperture of Mr. Bucklew's airway is further reduced because of the location of the hemangiomas that necessarily shift so that they further obstruct Mr. Bucklew's airway when he lies flat. Thus, in addition to a greatly increased velocity of flow of air through his airway, the aperture of Mr. Bucklew's airway will significantly decrease. Mr. Bucklew will experience this combination as a painful inability to breathe normally, even as compared to his usual labored breathing.

I. In addition to the above, the Execution Procedure calls for the injection of 5g of pentobarbital, contained in two separate syringes, thereby requiring two separate injections which will either be inserted into two separate veins, or through a single vein. The pentobarbital is likely to have the effect of impairing Mr. Bucklew's ability to maintain the integrity of his own airway, particularly given the aforementioned factors that will operate to make Mr. Bucklew's breathing extremely labored. Mr. Bucklew will likely not be fully alert or capable of altering his breathing to accommodate his compromised airway as he does while he is fully alert. Unlike when he is asleep naturally, he will not be able to shift position or wake up fully in order to correct his breathing.

J. I strongly disagree with Dr. Antognini's repeated claim that the pentobarbital injection would result in "rapid unconsciousness" and therefore Mr. Bucklew would not experience any suffocating or choking. [Decl. Antognini, ¶ 15]. In my medical opinion, the injection of pentobarbital called for in the Execution Procedure would not result in instantaneous unconsciousness. Rather, Mr. Bucklew would likely experience

unconsciousness that sets in progressively as the chemical circulates through his system. It is during this in-between twilight stage that Mr. Bucklew is likely to experience prolonged feelings of suffocation and excruciating pain. This opinion finds support in the Execution Procedure that explicitly allows for the possibility that five minutes after receiving the injection, death may not have occurred and a second series of injections may be necessary. In addition, unconsciousness or semi-consciousness does not necessarily negate the feeling of pain; it only prevents the unconscious or semi-conscious individual from verbally manifesting that pain.

K. Any length of time in which an individual is experiencing choking and suffocation, without the ability to take a breath, is painful. Even if death is achieved after the passage of five minutes, five minutes is an excruciatingly long period of time for the individual to experience feelings of choking or suffocation. The passage of seconds and minutes is medically significant, particularly in Mr. Bucklew's case.

L. When Mr. Bucklew begins to experience the increased velocity of air through his airway coupled with the decreased aperture of his compromised airway, further exacerbated by pentobarbital's progressive effect on his mental and physical state, Mr. Bucklew will naturally struggle to take a breathe [sic]. This struggle will likely manifest as convulsive movements regardless of whether Mr. Bucklew is fully conscious. The harder Mr. Bucklew tries to take a breath, the more turbulent the flow of air through his airway will become and Mr. Bucklew will experience this as suffocation.

M. In addition, the increased violence with which Mr. Bucklew attempts to breathe and resultant

convulsive movements, combined with the extremely fragile nature of the tissue of his airway, and the increase in blood pressure resulting from increased stress, are highly likely to result in hemorrhaging from the hemangioma in his throat, mouth, and nasal cavity.

N. Mr. Bucklew's airway would be further obstructed by the blood from the hemorrhaging, causing Mr. Bucklew to choke and cough on his own blood during the execution proceeding.

O. In conclusion, it is my professional medical opinion that Mr. Bucklew, as a result of his particular medical condition and the atypical anatomy of his airway, will suffer excruciating pain and prolonged suffocation if he is executed by lethal injection.

"I declare under penalty of perjury that the foregoing is true and correct."

Executed on January 16, 2017

/s/ Joel B. Zivot
Joel B. Zivot, M.D.

MIR
MALLINCKRODT
INSTITUTE OF RADIOLOGY
WASHINGTON UNIVERSITY
MEDICAL CENTER

BUCKLEW, RUSSELL
DOB: 05/16/1968
PAT CLASS: Outpatient
MRN: 4280226

This exam was performed at Barnes-Jewish Hospital

Attending Physician: ERNIE-PAUL BARRETTE, M.D.

Requesting Physician; Radiologist(s): FRANZ WIPPOLD, M.D. WEI WANG, M.D.

****FINAL REPORT****

The radiology attending physician has personally reviewed this study, and has reviewed and/or edited this written report and agrees with it.

ACC#	Date	Time	Exam
39993297	Dec 19, 2016	14:39:00	70496 CT Angio Head w/o & w cont
39993329	Dec 19, 2016	14:39:00	70498 CT Angio Neck
39993701	Dec 19, 2016	17:00:00	70543 MRI Orb,Face,Nk, wo&w cont
39993703	Dec 19, 2016	17:00:00	70546 MR Angio Head wo&wi cont
39993730	Dec 19, 2016	17:00:00	70549 MR Angio Neck wo&wi cont

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39993730	Dec 19, 2016	17:00:00	70549 MR Angio Neck wo&wi cont

EXAMINATION:

1. Computed tomography angiography (CTA) of the neck.

2. Computed tomography angiography (CTA) of the head without and with contrast.

3. Magnetic resonance imaging (MRI) of the face and neck without and with contrast.

4. Magnetic resonance angiography (MRA) of the head without and with contrast.

5. Magnetic resonance angiography (MRA) of the neck without and with contrast.

HISTORY: 48-year-old male with hemangioma in the right tonsillar region.

TECHNIQUE:

1. Computed tomography of the head was performed without contrast according to standard protocol. Computed tomographic angiography was obtained

from the level of the aortic arch to the vertex following the uneventful administration of intravenous contrast. 3D images were generated on a dedicated workstation. Contrast information: 98 mL Optiray-350

2. Multiplanar multi-weighted MRI of the face and neck was performed without and with intravenous contrast using the standard face and neck protocol. Magnetic resonance angiography of the head was performed using separate data set acquisitions including a non-contrast time-of-flight technique and a post-contrast technique to produce axial thin-slice source images. Magnetic resonance angiography of the neck was performed using a separate data set acquisition non-contrast time-of-flight technique and a post-contrast technique to produce thin-slice source images. These images were then used to generate maximum intensity projection (MIP) images.

Contrast information: 18 mL Dotarem

COMPARISON: MRI of neck dated 06/24/2010.

FINDINGS:

An approximately 4.4 cm (transverse) x 3.9 cm (anteroposterior) soft tissue mass arises in right tonsillar region, corresponding to the patients known hemangioma. It has slightly decreased in size, measuring 4.35 cm in lateromedial dimension on this exam, and it measured 4.72 cm in lateromedial dimension on the MRI in 2010.

The mass extends into the right masticator space (involving the right medial pterygoid muscle, and the buccal fat and the pterygopalatine fossa), the right parapharyngeal space, the right posterior floor of mouth, and the right soft palate and uvula. In the oral cavity, the tumor extends along the roof of the oral

cavity to involve the hard palate and the soft palate, and it extends anteriorly to the soft tissue of the face, as well as upper lip and nose on the right side of the face. This causes narrowing of the oropharynx and the nasopharynx.

On the CTA, this mass is confirmed, also slightly decreased in size. This decrease in size involves predominantly the right posterior nasal component and masticator space component. Punctate densities likely represent calcifications versus prior interventions. The mass splays the right medial and lateral pterygoid plates and encroaches upon the right portion of the retropharyngeal space. The right internal carotid artery is not involved. A lobulated component of this mass involves the posterior nasal septum and right ethmoid paranasal sinus. An approximately 1 cm component involves the medial right extraconal orbit, as well as the right optic nerve at the orbital apex.

There is a gap and dehiscence of the right cribriform plate with an apparent meningocele descending into the region of the right ethmoid sinus. This is unchanged from the MR of 06/24/2010. This cribriform defect and meningocele may be due to involution of the hemangioma following the presumed intervention of several years ago. The remainder of the brain is unremarkable.

Regard the CTA portion of the examination, the origins of the common carotid arteries and vertebral arteries are normal. The common carotid bifurcations are normal. The courses of the internal carotid arteries are normal. There is a slight enlargement of the right facial artery and the right temporal artery. The circle of Willis is unremarkable. The left vertebral artery is dominant. No aneurysm is seen. No vascular stains supplying the hemangioma.

The nasopharyngeal airway is narrowed and displaced to the left. Also noted is a bullet fragment within the posterior left neck.

No other head and neck blood vessel abnormalities are seen.

1. Extensive deformation of the deep spaces of the midface due to known hemangioma.

2. Slight decrease in size of this hemangioma.

Dictated By: WEI WANG, M.D. on Dec 23 2016 1:25P

This document has been electronically signed by: FRANZ WIPPOLD, M.D. on Dec 23 2016 1:49P

SUPPLEMENTAL AFFIDAVIT OF JOEL B. ZIVOT, M.D.

1. Joel B. Zivot, being of sound mind and lawful age, hereby state under penalty of perjury as follows:

* * *

12. Any increase in Mr. Bucklew's blood pressure – such as from stress – will only aggravate his vascular tumors and thus cause greater threat to his airway. If any secretions enter his airway or he starts breathing hard – because of stress or any other cause – his airway will become even more constricted. This will likely start a dangerous cycle in which more strenuous attempts to breathe by Mr. Bucklew will only increase the degree of his airway obstruction. The typical things that other individuals do to get more air in – like taking a big breath – will only make his obstruction worse, and the harder he tries to breathe, the less air he will get.

* * *

16. The bottom line is that there is no way to proceed with Mr. Bucklew's execution without a substantial risk to Mr. Bucklew of suffering grave adverse events during the execution, including hemorrhaging, suffocating or experiencing excruciating pain.

* * *

IN THE UNITED STATES DISTRICT COURT
WESTERN DISTRICT OF MISSOURI

Case No. 4:14-CV-8000-BP

RUSSELL BUCKLEW,

Plaintiff,

vs.

GEORGE A. LOMBARDI, DAVID A. DORMIRE And TERRY RUSSELL,

Defendants.

RULE 26(a)(2) EXPERT REPORT

SUPPLEMENTAL DECLARATION OF
JOSEPH F. ANTOGNINI, M.D., M.B.A.

JOSEPH F. ANTOGNINI, acting in accordance with 28 U.S.C. § 1746, Rule 26(a)(2)(B), Fed. R. Civ. P., and Rules 702 and 703, Fed. R. Evid., does hereby declare and say:

1. I am submitting this supplemental report in the aforementioned case. All opinions expressed herein are stated to a reasonable degree of medical and scientific certainty unless otherwise noted.

2. Subsequent to my report of November 8, 2016 I have provided testimony in another case (Case No. 2:11-cv-1016; Plaintiffs Phillips, Tibbetts and Otte).

3. On February 3, 2017 I examined Bucklew at the Potosi Correctional Center in the presence of his attorney and Mr. Spillane. My examination of Bucklew revealed the following pertinent findings:

His blood pressure was 144/100, pulse 79 bpm. He had a hemangioma involving the right side of his face, manifested externally primarily as slight swelling of his face, and involvement of his upper lip; examination of his mouth and oropharynx revealed involvement of the mucosal portion of his upper lip, as well as the buccal oral mucosa on the right-side and his uvula. He had a Mallampati 4 airway. He was able to breathe through both nostrils, although breathing through the right nostril was more difficult than through the left. He had a normal gait, 5/5 strength in all four extremities. His patellar reflexes were decreased; his biceps reflexes were normal. On examination, he was not able to smile, consistent with the diagnosis of bilateral Bell's palsy. He was able to move his tongue from side to side, and he moved his eyes in all directions. His speech was normal. His lungs were clear to auscultation and his heart sounds were normal. Examination of his chest, neck and arms did not show any signs of venous congestion. There were small superficial veins in his hands (right greater than left).

Assessment:

1. Hemangioma involving his face on right side and oropharynx, with potential for difficult airway if the inmate needed to undergo a medical or surgical procedure requiring sedation or anesthesia.

2. Residual effects of bilateral Bell's palsy, but no other neurological signs suggesting a prior stroke.

3. No evidence of superior versa cava syndrome.

4. Limited sites for IV access in upper extremities.

4. My assessment of the inmate's airway does not alter my opinion regarding the actions of pentobarbital, that is, a large dose of pentobarbital will cause rapid unconsciousness and respiratory arrest. The resultant unconsciousness and lack of respiratory drive, renders the airway issue irrelevant.

5. The intravenous administration of five (5) grams of pentobarbital would result in rapid unconsciousness, notwithstanding Dr. Zivot's claim that, in my first declaration, I wrote or inferred that pentobarbital would cause instantaneous unconsciousness. (In fact, I never used the word "instantaneous".) I did write (and do so in this declaration) that pentobarbital would result in ". . . rapid onset of unconsciousness followed by death." I clarify that opinion that the rapid onset of unconsciousness would occur within 20-30 sec after the administration of the large dose of pentobarbital. To reiterate and expand on my earlier statements:

> Pentobarbital (5 grams) will cause 1) rapid and deep unconsciousness within 20-30 sec, followed by 2) markedly depressed drive to breathe, followed by 3) absence of breathing, followed by 4) decreased oxygen levels in the body, followed by 5) slowing of the heart beat, followed by 6) the heart stopping, i.e., death. During this period there will also be cardiovascular depression and collapse.

Even if the inmate did have bleeding in his airway after the administration of pentobarbital, the deep unconsciousness produced by the pentobarbital would prevent the inmate from sensing this bleeding.

6. A large dose of pentobarbital, such as the 5 grams, would cause respiratory arrest and cardiovascular collapse, leading to death. (see http://emedicine.medscape.com/article/813155-overview#a5 accessed 2-6-17)

7. Dr. Zivot has written in a publication (*Zivot*, 2016) that:

> "As a consequence of these airway tumors, Bucklew cannot lie flat because gravity tugs on the tumors and blocks his breathing. Execution by administration of lethal injections, for physiological efficacy, requires a prisoner to lie flat. If Bucklew were to be executed, he would have to be sitting up."

Bucklew can, in fact, lie flat— according to the inmate, he did so for about 1 hour while undergoing his recent imaging studies (December 19, 2016). While he stated he was not comfortable, he was nonetheless able to be flat. Secondly, pentobarbital (or any other intravenous drug) does not require the subject to be supine. Many patients are anesthetized in the sitting or semi-sitting position—I have done this many times in my career. Dr. Zivot's statement implies that intravenous drugs will not work properly when a subject is not supine. In any case, if there are concerns about the inmate's ability to be supine, Dr. Zivot has provided the State of Missouri guidance on how to execute Bucklew.

8. Dr. Zivot's conclusions do not fit with the facts and how pentobarbital works. As stated above, pentobarbital (5 grams) causes rapid unconsciousness followed by respiratory arrest, cardiovascular collapse and death. After intravenous injection of 5 grams pentobarbital, concentrations of pentobarbital will far exceed the lethal concentrations (see Table 1, package

insert, and extrapolating from data of *Ehrnebo*, 1974). Once respiratory depression and arrest occurs within 1-2 minutes, the unconscious inmate then begins to use up the oxygen stores in his body, which are estimated to be 1200 ml (*Campbell & Beatty*, 1994). Normal oxygen consumption is about 250-300 ml/min, and virtually all the oxygen in the inmate's body will be used after 4-5 min. In fact, estimates of oxygen saturation after apnea confirm this relationship (*Farmery & Roe*, 1996). Before all the oxygen is used, however, the heart will be affected and will begin to slow, and will then have agonal beats and it likely will take several minutes before the heart stops all together. At that point, death is declared. This process, as described, is irrefutable. It is based on the known actions of pentobarbital, eyewitness statements and sound pharmacological and physiological principles.

9. Dr. Zivot seems to imply that, after administration of a large dose of pentobarbital, the inmate will languish in a zone of being neither awake nor completely unconscious, and will thereby suffer from the sensations he describes (excruciating pain, air hunger, choking, etc.). Such a scenario is incompatible with the known effects of pentobarbital, especially in view of the statements (previously cited) of witnesses to prior Missouri executions using pentobarbital. Furthermore, Dr. Zivot's "Objective Factual Bases For Opinion" (Sections IV.A-E of his January 19, 2017 declaration) are only pertinent to a person who is *breathing*. As previously stated, a large dose of pentobarbital will induce rapid unconsciousness and stop the drive to breathe.

10. The term "air hunger" has been used by Dr. Zivot in an inappropriate, mis-leading and inaccurate manner. Air hunger describes the sensation a

conscious person would have when they are unable to breathe sufficiently. The definition is here:

1: a sensation of not being able to breathe in sufficient air or of needing to breathe in more air that typically results in deep, rapid, labored breathing and occurs especially in those affected with acidosis

2: abnormal deep, rapid, labored breathing : kussmaul breathing https://www.merriam-webster.com/medical/air%20hunger (Accessed 2-2-17)

Sensation is defined:

1a: a mental process (as seeing, hearing, or smelling) resulting from the immediate external stimulation of a sense organ often as distinguised [sic] from a conscious awareness of the sensory process—compare perception b: awareness (as of heat or pain) due to stimulation of a sense organ c: a state of consciousness due to internal bodily changes <a sensation of hunger>

2: something (as a physical stimulus, sense-datum, pain, or afterimage) that causes or is the object of sensation https://www.merriam-webster.com/dictionary/sensation#medicalDictionary (Accessed 2-2-17)

11. The logical interpretation of these definitions is that a person must be awake to perceive air hunger, and clearly the inmate would not be conscious 20-30 sec after administration of the large supra-clinical dose of pentobarbital that is described in the Missouri execution protocol.

12. Respiratory depression is a known consequence of sedative and anesthetic drugs, including barbiturates, such as pentobarbital, and opiates, such as fentanyl, morphine and heroin. Indeed, respiratory depression is the primary cause of death from overdose of these drugs. But it makes no logical sense how, on

the one hand, these drugs (opiates, barbiturates) can stop breathing, and on the other hand, produce the sensation of air hunger. After all, if the person senses air hunger as a result of these drugs, why wouldn't they breathe? Indeed, in the clinical setting, when patients have drug-induced respiratory depression, if conscious, they can he told to breathe, which they do. But, if not continually encouraged, they will fail to breathe on their own. The most logical way to reconcile these two situations (respiratory depression and the purported air hunger) is that the drugs remove the sensation of air hunger.

13. Dr. Zivot seems to claim in his declaration dated January 19, 2017, section V.A.5, that my delineation of the numerous surgical procedures that the inmate has had was provided only as evidence that no special precautions were needed with regard to management of his airway. This is not so. The main reason for my discussion of these procedures was that the inmate reacted normally to the anesthetic drugs, i.e., the inmate's hemangioma did not significantly alter his response to the anesthetic drugs (both intravenous anesthetics and inhaled anesthetics).

14. In the clinical setting many patients have abnormal or difficult airways. For example, obese patients often have redundant tissue in the airway. It makes no sense that, after the administration of pentobarbital, and the onset of unconsciousness within 20-30 see, that this inmate will make attempts to breathe and he will somehow regain consciousness because of it. The analogy Dr. Zivot draws between airway obstruction during sleep and airway obstruction after administration of a large supra-clinical dose of pentobarbital is inappropriate and misleading. A person can be awakened from sleep from various stimuli

(including airway obstruction) but a person cannot be awakened from a large supra-clinical dose pentobarbital. After all, pentobarbital is an anesthetic, and by definition, anesthetics prevent awakening from stimuli, including airway obstruction.

15. This inmate's airway could be difficult to manage in the *clinical* setting (although there was no mention of difficulty with past anesthetics for which endotracheal intubation was used, as I previously cited). There would be increased risk attendant to general anesthesia that would be required for a medical or surgical procedure, specifically, when the intended outcome is that the patient is *alive* at the end of the procedure. But we are not assessing the inmate's risk for that scenario. By definition, the inmate is not undergoing a medical procedure, and the intended outcome of Missouri's execution protocol is *death*, so a discussion of risk in the clinical setting is simply not germane.

16. The opinions and statements in this supplemental declaration and my original declaration dated November 8, 2016 are provided as expert testimony regarding the pharmacological agents discussed herein and their pharmacological and clinical effects. Nothing in these declarations is meant to be, or should be construed as, advice or recommendations to the State of Missouri or any other entity, person or persons on how to conduct a lawful execution, especially with regard to one method of execution being favorable compared to another.

CONCLUSIONS

17. The above Report is based upon facts, documents and circumstances that have been made available to me through and including February 10,

2017. If I become aware of additional facts, documents and circumstances, I may revise, extend and/or supplement this report as may be appropriate under the circumstances and/or include further or amended opinions on issues that may lie within my field of expertise.

In accordance with 28 U.S.C § 1746, I declare under penalty of perjury that the foregoing is true and correct.

Executed on February 10, 2017.

/s/ Joseph F. Antognini
Joseph F. Antognini, M.D.,M.B.A.

IN THE UNITED STATES DISTRICT COURT
WESTERN DISTRICT OF MISSOURI

Case No. 4:14-CV-8000-BP

RUSSELL BUCKLEW,

Plaintiff,

vs.

GEORGE A. LOMBARDI, DAVID A. DORMIRE
And TERRY RUSSELL,

Defendants.

RULE 26(a)(2) EXPERT REPORT

DECLARATION OF
JOSEPH F. ANTOGNINI, M.D., M.B.A.

JOSEPH F. ANTOGNINI, acting in accordance with 28 U.S.C. § 1746, Rule 26(a)(2)(B), Fed. R. Civ. P., and Rules 702 and 703, Fed. R. Evid., does hereby declare and say:

* * *

10. Several facts are relevant to this case. On October 11, 2000, the inmate had an angiogram to delineate the blood flow to his hemangioma. The radiologist's conclusion was ". . . . no true fistula was seen in this angio a very slow flow type of lesion is very likely". Importantly, the inmate's hemangioma was large and symptomatic during this period when he was being evaluated. This finding indicates that the inmate's hemangioma does not have high blood flow, and thus would not alter drug distribution. Furthermore, cavernous hemangiomas, while they can grow

progressively larger, do not change their blood flow characteristics, i.e., the hemangiomas maintain relatively low blood flow. (Note: I do not believe a high flow lesion, even if present, would significantly affect drug distribution, as discussed in section 14).

11. Between December 2000 and November 2003 the inmate underwent at least eight (8) surgical procedures requiring general anesthesia. Of note, on December 6, 2000, Bucklew had a tracheostomy and sclerotherapy for his hemangioma. He had been symptomatic for many months prior to this procedure, including bleeding episodes. His medical record clearly documents that his hemangioma was large and involved his soft palate and hard palate. During this procedure on Dec 6, 2000 he was supine, received a tracheosotomy with local anesthesia (i.e., he was awake for this portion of the procedure), and then he received general anesthetic drugs intravenously. The record indicates that he reacted normally to the drugs, i.e., he was unconscious. He received general anesthesia uneventfully over the next three years for additional sclerotherapy treatments, thoracotomies (chest surgery) and dental extractions. The dental extractions were performed on November 3, 2003, and prior to this surgery the record indicates that his hemangioma was large. These various facts show that the inmate reacted normally to anesthetic drugs during periods when his hemangioma was large, indicating that the hemangioma did not alter his response to general anesthetic drugs.

* * *

13. It is my opinion that Drs. Zivot and Jamroz conflate the anatomical and physiological characteristics of various abnormal vascular growths, including arteriovenous malformations (AVMs) and cavernous hemangiomas. Arteriovenous malformations have a direct connection between the small feeding arteries and the draining veins, so the AVM acts as a low resistance, high flow system. Cavernous hemangiomas (as is present in the inmate), however, have large intervening "caverns" between the arteries and veins, and these caverns act like pools, which limit blood flow. Studies have reported blood flow through AVMs and cavernous hemangiomas, and there is clear documentation that blood flow in the cavernous hemangioma, unlike blood flow in an AVM, is low compared to surrounding tissue (*De Reuck et al., 1994; Little et al., 1990 Xiao et al., 2014*). For this reason, it is my opinion that overall blood flow to this inmate's cavernous hemangioma is relatively low compared to the blood flow to his brain. Furthermore, as noted above, the inmate had an angiogram demonstrating the hemangioma was low-flow. Nevertheless, even if there was a "steal" phenomenon, it is my opinion that it would not materially alter the distribution and action of drugs affecting the brain (see #14, next).

14. The argument by Drs. Zivot and Jamroz goes something like this: the cavernous hemangioma takes blood flow away from the brain or parts of the brain, and thereby alters the drug distribution. Taking their argument to its necessary conclusion, in order that the drug not get to the brain requires that the hemangioma takes all the blood away from the brain.

But this clearly cannot happen without obvious effect. If the hemangioma "steals" more and more blood, it would deprive the brain (or parts of the brain) of blood, which eventually would cause death of those brain areas so deprived. Clearly, this is not happening, as the inmate has not suffered a stroke. He has recently been observed to speak normally and walk without difficulty. Furthermore, following a large pentobarbital dose, brain areas that might have low blood flow would still receive blood with high concentrations of the drug, and thereby depress those brain areas. Finally, if these brain areas have died because of low, or no blood flow, drug action there is immaterial. Thus, the "steal" argument by Drs. Zivot and Jamroz is specious and fundamentally flawed because 1) cavernous hemangiomas do not have high blood flow; 2) this inmate has a low-flow hemangioma documented by angiogram; 3) a "steal" phenomenon would not significantly alter the drug distribution; 4) brain areas with low blood flow would still receive blood with high drug concentrations. And, as noted above, the inmate has indeed reacted normally to anesthetic drugs—as expected.

* * *

16. Inmate Bucklew apparently has breathing difficulty when laying supine and it is not clear from the records what position he favors when sleeping. In some medical notes, he has been observed to sleep on his side while at other times he has been seen to sleep supine. If he were to undergo a medical procedure that required general anesthesia, and laying supine caused him difficulty, then the normal practice would be to induce anesthesia with him in the semi-recumbent or sitting position.

17. Dr. Zivot states that, based on his examination, Bucklew's airway is ". . . . friable, meaning it is weak and could readily tear and rupture. If you touch it, it bleeds" (#9, 10-13-15 declaration). Dr. Zivot uses this observation as evidence that Bucklew could suffer "feelings of suffocation and extreme or excruciating pain" (#10, 10-13-15 declaration). Yet, curiously, further in his declaration, Dr. Zivot recommends that Bucklew undergo a clinical examination that would ". . . include bronchoscopy and the use of a Glidescope" (#18, 10-13-15 declaration). These procedures, especially using a Glidescope, would require airway manipulations that are counter to Dr. Zivot's concerns regarding Bucklew's airway. Brochoscopy involves placing a small plastic tube with a camera into either the nose or mouth and advancing the tube through the upper airway and into the trachea (windpipe), for the purpose of visualizing the airway anatomy. This procedure almost always requires administration of local anesthesia in the nose/mouth and oropharynx, as well as the windpipe. Patients commonly gag and cough during bronchoscopies (*Kajekar et al., 2014*). Furthermore, blood pressure can increase substantially in some patients undergoing bronchoscopy (*Davies et al., 1997*). The Glidescope is a trade name for a brand of videolaryngoscope, a device which is used to visualize the mouth and oropharynx during airway manipulation. As with bronchoscopy, topical local anesthesia is required in an awake patient, and there is risk of gagging and coughing with the use of a Glidescope, or other videolaryngoscopes. It is difficult to reconcile Dr. Zivot's concern about the risk of bleeding as the result of the execution protocol with the real risk of gagging, coughing, increased blood pressure and bleeding from the bronchoscopy and videolaryngoscopic examinations he proposes to do (*Rosenstock et al., 2012;*

Kajecar et al., 2014). Finally, to emphasize the inherent contradiction in his argument, Dr. Zivot states ". . . the placement of any device in the pharynx will cause instant bleeding" (#15, 12-4-15 declaration).

* * *

23. In this inmate the use of lethal gas does not hold any advantage compared to lethal injection with respect to pain and suffering. Both methods would result in minimal pain and suffering. Specifically, the intravenous injection of a large dose of pentobarbital would result in rapid unconsciousness. The inmate claims, through counsel, that execution by a gas would he preferable because ". . . the lethal agent enters the body through the lungs . . ." and it ". . . . bypasses Mr. Bucklew's circulatory system . . ." (Doc 53, 4th amended complaint, at #29). This assertion is incorrect. The use of various gases (hydrogen cyanide, nitrogen, for example) work by the gas entering the lungs, and then being transported by the circulatory system. Whether the effect is the presence of an active poison (hydrogen cyanide) or the displacement of oxygen by an otherwise inert gas (nitrogen) the circulatory system is needed.

* * *

Why I'm for a moratorium on lethal injections: Column

Joel Zivot

5:32 p.m. ET Dec 15, 2013

As an anesthesiologist, my job is to save lives, not to take them.

(Photo 2005 AP photo)

I am an anesthesiologist, and I possess the knowledge on how to render any person unconscious You may call it sleep, but it is nothing of the sort.

I learned my craft with the use of sodium thiopental (http://www.rxlist.com/pentothal-drug.htm), a drug in the barbiturate class. To witness it for the first time, to watch as it raced into a vein, and in a moment, rendered the patient unconscious, was nothing short of astounding. In those moments, my job was to be reassuring and comforting, for I can imagine no greater moment of trust between a doctor and a patient.

Sodium thiopental is no longer in my pharmacology toolbox. Hospira, the last company to manufacture the drug, stopped making it (http://phx.corporate-ir.net/phoenix.zhtml?c=175550&p=irol-newsArticle&ID=1518610&highlight) to protest its use in carrying out the death penalty.

So other drugs have been substituted. One of them will be used Tuesday, when Oklahoma is scheduled

to execute by lethal injection Johnny Dale Black (http://www.ok.gov/doc/Offenders/Death_Row/), who was convicted of murder.

An executioner and the condemned are not the same as a doctor and a patient, though it is easy to see how similarities can be drawn. Had this supposed similarity not been noticed, the death penalty in the U.S. would likely not have survived. Instead, lethal injection created an illusion of humane, professional execution. But the executioners are not doctors, and it's been well established that the executions themselves are not humane.

My right to use sodium thiopental was earned through thousands of hours of the study of pharmacology, anatomy, physiology, training and evaluation. It was earned by the granting of a medical degree. It was granted by state medical boards whose job is to protect the public. It was validated by the granting of hospital privileges based on proof of my sound, safe and sage practice and a license from the Drug Enforcement Administration (http://www.justice.gov/dea/index.shtml).

Rue my silence

As a physician, however, I am ethically prohibited from commenting on the details of lethal injection lest even casual association suggest support or oversight. I now see that my silence has created the opposite effect. My silence has sanctioned it, not prevented it.

States may choose to execute their citizens, but when they employ lethal injection, they are not practicing medicine. They are usurping the tools and arts of the medical trade and propagating a fiction.

When I gave a patient sodium thiopental, it was a medicine whose purpose was to heal. When the state gave sodium thiopental to a prisoner, it was a poisonous chemical whose purpose was to kill.

These days the debate is even more troubling. States are seeking alternatives (http://www.cnn.com/2011/US/02/09/execution.drug.shortage/) to sodium thiopental. They collude with compounding pharmacies to make pentobarbital (http://www.reuters.com/article/2013/10/03/us-usa-executions-texas-idUSBRE9920SG20131003) a cousin of sodium thiopental. When that is not available, they raid the pharmacology toolbox again.

In search of options

Missouri (http://www.washingtonpost.com/politics/missouri-gov-halts-1st-us-execution-by-propofol/2013/10/11/559e6af6-32d9-11e3-8627-c5d7de0a046b_story.html) recently obtained propofol, an exceedingly important anesthetic agent, and threatened to use it for executions. It would have succeeded if not for the threat of sanction by the European Union, which (http://popofol-info.com/risk-eu-sanctions.htm) opposes the death penalty. Because of our broken domestic drug manufacturing market, 90% (http://www.nature.com/news/death-row-incurs-drug-penalty-1_13996?WT.ec_id=N) of our propofol is produced in Europe. EU sanctions would have stopped propofol shipment to the U.S. and left physicians without this critical drug.

Most recently, Florida reported the use of midazolam (http://www.nbcnews.com/health/florida-execute-man-using-untried-lethal-injection-drug-8C11390762), another essential medication, in an execution. Midazolam is in the class referred to as a benzodiazepine (http://www.drugs.com/pro/midazolam-injection.html). These

drugs replaced barbiturates, to a degree, because they were safer. That is, it is harder to kill someone with them. How Florida granted itself expertise in the use of midazolam, now repurposed as a chemical used to kill, is known only to Florida.

Most shockingly, midazolam is in short supply (http://www.theguardian.com/world/2013/oct/02/texas-execution-drugs-pentobarbital). From an ethical perspective, I cannot make the case that a medicine in short supply should preferentially be used to kill rather than to heal. What appears as humane is theater alone.

What we need is a moratorium on the use of all anesthetic agents for lethal injection. If the state is inclined to execute, it might be the time again to take up hanging, the electric chair or the bullet.

Joel Zivot, M.D., is an assistant professor of anesthesiology and also the medical director of the cardio-thoracic and vascular intensive care unit at Emory University School of Medicine in Atlanta.

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Cerebral and Brainstem Electrophysiologic Activity During Euthanasia with Pentobarbital Sodium in Horses

M. Aleman, D.C. Williams, A. Guedes, and J.E. Madigan

* * *

Materials and Methods

Animals

This observational prospective study included 15 horses for which euthanasia was elected based on published guidelines during a study period from 2011 to 2014.[1] Reasons for euthanasia included poor quality of life, intractable pain, progressive and debilitating or incapacitating disease with a poor prognosis. Horses were sourced from a research herd and patients from the William R. Pritchard Veterinary Medical Teaching Hospital.

Sedation and anesthetic protocol

All horses had an intravenous catheter placed in the jugular vein for the administration of sedatives, injectable anesthetics, and euthanasia solution. Sedative and anesthetic protocols before euthanasia were elected according to the horses' condition or disease, temperament, apparent anxiety, clinician preference, and safety concerns for the horse, personnel, and equipment. Accordingly, 3 protocols were used: (1) intravenous sedation (IVS, n = 4

horses), (2) intravenous anesthesia (IVA, n = 4), or (3) inhalation anesthesia (IA, n = 7).

Intravenous sedation consisted of administration of xylazine hydrochloride at a dosage of 0.25 mg/kg to relieve anxiety and facilitate electrode placement. Four horses (#1–4) were included in this group (orthopedic = 2, neurologic = 1, cardiac disease = 1). BAER was not performed in these horses because of equipment safety concerns.

Intravenous anesthesia consisted of administration of xylazine hydrochloride at a dosage of 1 mg/kg IV followed 5 minutes later by administration of ketamine hydrochloride at 2.2 mg/kg IV. Four horses (#5–8) received IA (neurologic = 3, orthopedic disease = 1). The electrodes for the recording of the study were placed once the horses were anesthetized. A BAER was performed in 3 of 4 horses.

In the group of horses euthanized while under inhalation anesthesia, horses were first sedated with xylazine and induced with ketamine as in the IVA group. Seven horses (#9–15) received inhalation anesthesia (neurologic = 6, orthopedic disease = 1). Reasons for undergoing anesthesia included myelography, computed tomography, and magnetic resonance imaging. Inhalation anesthesia was maintained with isoflurane (except one horse [#13] that received desflurane) delivered in 100% oxygen via a large animal anesthesia machine and breathing circuit. In addition, this one horse (#13) received IV propofol at a dosage of 2 mg/kg. Before euthanasia, the anesthetic level was maintained such that the EEG recorded continuous activity (no burst suppression). BAER was performed in 5 of 7 horses because of equipment availability.

Physical and neurologic variables

Physical variables included audible heart rate (beats per minute [bpm]) and rhythm, and the presence and quality of the arterial pulse. The neurologic variables consisted of presence or absence of brainstem reflexes such as direct pupillary light, corneal, and palpebral reflexes. The subcortical dazzle reflex was also monitored. These variables were monitored as follows: before receiving any medication (sedation), after instrumentation (EEG, EOG, ECG, and BAER), within 1 minute immediately before euthanasia solution infusion, within 20 seconds after the initiation of the infusion, immediately after the end of the infusion, and every 30 seconds thereafter until these variables were undetectable. Monitoring at these specific time points were not always possible in horses from the sedation group because of safety concerns. However, once horses from this group collapsed, variables were recorded immediately after collapse and every 30 seconds thereafter. Personnel assistance was used for monitoring physical (1st assistant) and neurologic (2nd assistant) variables. Mean arterial blood pressure (MAP) was continuously recorded in the inhalation anesthesia group.

Electrophysiologic examination

The examination consisted of EEG, EOG, electrocardiography (ECG), and BAER as described elsewhere.[12,13] The equipment used for EEG, EOG, and ECG was a digital EEG system (stationary or wireless),[ab] with integrated video monitoring. Stationary or wireless (telemetry) digital EEG systems were used based upon equipment availability or safety concerns (eg, standing sedation versus anesthesia). Instrumentation for these procedures has been described elsewhere.[12] Needle electrodes were

placed SC in the scalp of the horse for the recording of EEG.[12] Baseline recordings were performed before euthanasia in all horses. When possible, recordings were continuous throughout the procedure.

An evoked potential system[c] was used for the recording of BAER. However, BAER was not evaluated in nonanesthetized horses for equipment safety reasons. One set of baseline tracings (an average of 200 responses using both derivations [vertex to mastoid, and vertex to C2][13] run simultaneously) with a single duplicate recorded for each ear were done before euthanasia. Immediately after this recording, infusion of euthanasia began and recordings were made continuously. Each complete recording took 90 seconds total. These were repeated continuously until BAER was absent (no peaks could be detected). The noise applied to the ear under evaluation was 90 dB normal hearing level (nHL) with a masking noise for the contralateral ear of 60 dB nHL.[13] Identification of visible peaks were labeled from I to V; these were consistent with auditory function.[13]

Euthanasia protocol

Euthanasia consisted of intravenous injection of a combination of both pentobarbital sodium[d] (390 mg/mL) and phenytoin sodium (50 mg/mL) at a dosage of 77–109 mg/kg for a total volume of 100 mL for horses above 400 kg of body weight. This dosage protocol is routinely used by most practicing veterinarians. The study was approved by an institutional animal care and use committee and owner consent was obtained.

Statistical analysis

Mean, standard deviation (SD), median, and range values are presented. No attempts were made to

compare the results from the 3 groups of horses because of the low numbers of horses with different disorders, different euthanasia protocols, and variation in euthanasia solution dosages.

Results

Fifteen horses of Thoroughbred (n = 5), Quarter horse (n = 4), Arabian (n = 2), Morgan (n = 2), Warmblood (n = 1), and Tennessee Walking horse (n = 1) breeds were included in the study. There were 8 males (castrated = 7, intact = 1), and 7 females. The mean age was 10.8 years (median 14, range 20 days to 17 years). Ten horses had neurologic disease as follows: cervical compressive myelopathy (n = 4), progressive multifocal spinal cord disease (n = 3: undetermined etiology, n = 2/3; scoliosis, n = 1/3), occipitoatlantoaxial malformation with compression of the cervical spinal cord (n = 1), equine protozoal myeloencephalitis (n = 1), and meningoencephalomyelitis because of *Halicephalobus gingivalis* (n = 1). Four horses had orthopedic disease: chronic multiple osteoarthritis (n = 2), bilateral femoral osteochondrosis (n = 1), and bilateral pelvic fracture (n = 1). One horse had atrial fibrillation with severe atrioventricular heart block.

The mean infusion time was 46.8 seconds (SD 23.1, median 38, range 28–115 seconds) in adult horses. Two foals received 20 and 30 mL of euthanasia solution infused over 21 and 32 seconds, respectively. The mean infusion time for all horses was 44.1 seconds (SD 22.7, median 37, range 21 to 115 seconds). Heart rate increased during and immediately after the administration of euthanasia solution (before infusion: mean 40.4 bpm, SD 15.4, median 32, range 30–80; immediately after the infusion: mean 54.3, SD 12, median 52, range 36–80 bpm). Visible and audible breaths were not evident by the end of the infusion.

Within 1 minute after euthanasia, heart sounds (mean 43.2, SD 12.1, median 38, range 25–60 seconds) were not audible and arterial pulse was undetectable. The MAP decreased from a mean of 83 mmHg (SD 5.6, median 80, range 75–89 mmHg) before euthanasia to 56.7 mmHg (SD 9.9, median 60, range 58–66 mmHg) after the infusion. Mean arterial pressure (MAP) was undetectable at a mean time of 52.6 seconds (SD 9.3, median 59, range 40–60 seconds) after the end of the infusion. All horses had intact brainstem reflexes before euthanasia.

A 10-minute baseline EEG was recorded in all horses before euthanasia. Interpretable EEG was obtained in standing horses under sedation before infusion of euthanasia solution. However, interpretation was difficult during the infusion because of movement artifact. Based on unpublished isoflurane data from another EEG study in horses (DCW, MA), a minimal alveolar concentration of less than 1.2 was maintained to obtain continuous EEG activity without suppression. Burst suppression,[14] defined as an isoelectric pattern alternating with bursts of high voltage activity, was noted in 2 horses anesthetized with isoflurane after infusion of 20–40 mL of euthanasia solution (Fig 1). Lack of detection of EEG (a continuous isoelectric pattern) occurred at a mean time of 52.6 seconds (SD 26.6, median 41, range 25–111 seconds) from time 0 (defined as the start of the infusion). Undetectable EEG occurred before (Fig 2A) and after (Fig 2B) termination of the infusion in 4 and 9 horses, respectively. In 2 horses (#2 and 3) from the sedation group, electrodes were lost as the horses collapsed. A reduced number of electrodes (9 plus ground) were placed promptly (<15 seconds) after collapse and an isoelectric pattern was noted; making it difficult to determine at what time point the EEG

became isoelectric. In the group of 9 horses, loss of EEG activity occurred from 2 to 52 seconds (mean 23.7, SD 21.3, median 18 seconds) after termination of the infusion. The horse with the longest time to loss of EEG activity had atrial fibrillation and the longest time of infusion (Fig 3). This horse collapsed 17 second [sic] after the termination of the infusion, and lost EEG activity 29 seconds later. A different horse from the sedation group collapsed 5 seconds after the termination of the infusion and lost EEG activity 13 seconds later. Lack of brainstem reflexes occurred at a mean time of 81.1 seconds (SD 39, median 80, range 36–169 seconds) after the end of the infusion. A breath-like movement (perceived as an agonal breath) concurrent with undetectable brainstem reflexes was observed in 3 horses (Fig 4). A baseline BAER was recorded in 8 of 8 horses before euthanasia (Fig 5A). Decreased amplitudes of all waves were noted seconds after the termination of the infusion (Figs 5B,C). Loss of detectable BAER was seen at a mean time of 122.6 seconds (SD 69.6, median 88, range 73–261 seconds) after completion of the infusion (Fig 5D). In one horse, a second breath-like movement was observed and recorded on EEG at approximate [sic] 8 seconds after BAER became absent (not shown).

Despite undetectable heart sounds and the absence of a palpable arterial pulse, ECG monitoring showed ongoing ECG activity until a mean time of 559.1 seconds (SD 217.9, median 501, range 330–979 seconds) from termination of the infusion in all horses of all groups. During this time, brainstem reflexes and brain electrical activity did not return, and MAP was not recordable. In the horse with atrial fibrillation (Fig 3A), the heart rhythm became regular based on ECG (Fig 3B) after euthanasia solution administration. Before the occurrence of undetectable ECG in all

horses, the ECG waves became irregular in shape, size, and rhythm (Fig 6).

Discussion

This study showed that euthanasia with an overdose of pentobarbital sodium administered IV is an effective, fast, and humane method to terminate life in horses. Absence of detectable cortical electrical activity can occur during the administration of an overdose of pentobarbital (4 horses) or within 52 seconds after completion of the infusion (9 horses). The exact time at what 2 horses lost cortical electrical activity was not determined, but thought to be either during or shortly after (<15 seconds) the end of the infusion. This lack of EEG activity appeared to be irreversible based on continuous recording for several minutes with no recovery of EEG activity. Brainstem function was lost second based on absent brainstem reflexes and BAER. Brainstem reflexes were undetectable before loss of the BAER. Agonal breaths were observed concurrently with the loss of brainstem reflexes. Although heart sounds and a palpable arterial pulse were undetectable, ECG activity was the last variable to be lost. Absence and lack of recovery of any detectable brain electrical activity, based on EEG and BAER, supported the diagnosis of brain death in these horses.

Electroencephalography has been used for decades to aid in the determination of brain death in human medicine.[15] Electroencephalography reflects cerebral cortical activity modulated by diencephalic and brainstem influences. An isoelectric pattern on EEG supports the absence of cerebral electrical activity. However, barbiturate administration and hypothermia can preclude proper diagnosis of brain death.[16] Barbiturates can cause burst suppression and

even an isoelectric pattern.[17] Therefore, determining brain death in patients treated with barbiturates can be challenging. Halogenated inhalation anesthetics, such as isoflurane, can also cause burst suppression and isoelectric patterns.[17] Propofol can also cause burst suppression in humans; however, the single horse that received propofol did not demonstrate this pattern.[17] In the present study, only 2 horses displayed burst suppression and both horses were anesthetized with isoflurane. However, burst suppression was not observed until the infusion of pentobarbital sodium. The sedative (xylazine hydrochloride) administered to the horses in this study is not associated with burst suppression or isoelectric patterns.[12] Ketamine hydrochloride, the induction agent, does not induce these EEG patterns.

Brainstem evoked response is used to assess the auditory pathway which includes the cochlear nerve, caudal, and cranial brainstem.[18] Therefore, BAER could be used as a diagnostic aid to evaluate the presence or absence of brainstem function.[18] However, BAER is considered to have a moderate prognostic value and low to moderate validity to confirm brain death depending upon the disease process (eg, severe brain-stem injury).[2,19] To fulfill the criteria of brain death in people with sufficient brainstem damage, BAER waves are absent after wave I or occasionally after wave II.[19] Complete absence of BAER could indicate deafness because of peripheral auditory dysfunction and not brain death exclusively.[19] To avoid misinterpretation of BAER in our study, a baseline BAER was recorded in 8 horses. All BAER waves were present in these 8 horses and considered to be within published reference ranges.[20,21] The amplitude of all waves decreased and interpeak intervals increased within seconds after termination of pentobarbital

infusion. Loss of waves II to V (brainstem, Fig 5C) occurred first, and wave I was the last wave to become undetectable (Fig 5D). Complete absence of BAER is in support of brain death in the absence of severe brainstem disease in these horses (n = 8 of 8). BAER can persist despite high doses of barbiturates in people and animals.[22–25]

Factors that influence EEG and BAER recordings and interpretation such as disease and artifacts were considered. In this study, 3 horses had diseases that could have altered EEG and BAER findings. Two horses had multifocal brain disease with brainstem involvement (altered state of consciousness [stupor], multiple cranial nerve abnormalities). BAER was not performed in these 2 horses. The horse with atrial fibrillation took longer to lose ECG activity but its baseline EEG did not show obvious abnormalities. Artifacts such as those generated by movement, electrical interference, or hospital equipment (eg, ventilator) could interfere with proper EEG interpretation and determination of brain death. Movement artifacts were observed in standing horses resulting in difficulty in interpreting EEG as euthanasia solution was administered. Body temperature should be noted when using BAER as an aid to determine brain death because hypothermia can alter BAER (increased inter-peak latencies) in people.[26] This finding has not been investigated in horses. Body temperature in these horses did not decrease below 36.7°C (98°F), and BAER baseline was within reference ranges at this temperature.

The 2 horses with the longest infusion times (65 and 115 seconds) were the ones who took the longest to lose all ECG activity (962 and 979 seconds) after end of the infusion. The infusion of a smaller volume per time

likely prolonged the time for full effect of pentobarbital solution. However, one of these horses had atrial fibrillation with periods of no ventricular activity (based on recorded ECG) for over 8–9 seconds, which likely impacted the distribution time and effects of euthanasia solution. The mean infusion time of pentobarbital solution for the remaining 13 horses was 37.1 seconds, and the mean time to absent ECG activity was 495.8 seconds postinfusion. As this variable (loss of ECG) is frequently used to determine time of death, administration of an overdose of pentobarbital sodium should be performed quickly. The distribution of an overdose of pentobarbital might be delayed with prolonged infusion, therefore possibly prolonging the effect on the brain (perception). In another euthanasia study using different premedication protocols (detomidine versus no detomidine administration) and variable dosages of pentobarbital sodium (high versus low), the mean time to asystole varied according to the protocol used.[27] In that study, asystole occurred almost 4 minutes earlier in horses that received sedation compared to unsedated horses.[27] Although sedated horses took approximately 8 seconds longer to collapse than unsedated horses, the documentation that asystole occurred earlier, led the authors to conclude that the combination of sedation with high doses of pentobarbital resulted in faster cardiac death.[27] The overall mean infusion time in that study was 17 seconds (range 6–45 seconds).[27]

Pain, anxiety, and distress by a conscious horse could be minimized by administering IV sedation before euthanasia. In horses with standing sedation, 2 horses had isoelectric EEG patterns at the time of electrode replacement (<15 seconds after collapse) and 2 other horses took 18 and 46 seconds postinfusion to reach cerebral silence. The horse that took the longest

time had atrial fibrillation, which likely played a role in the prolongation to effect. A larger number of horses are needed to validate these findings. However, the results of this study are encouraging because an isoelectric pattern on EEG supports a lack of conscious perception of pain and distress as euthanasia is occurring and while brain death and eventually asystole take place. A study by Chalifoux and Dallaire demonstrated that EEG was lost 4 minutes after euthanasia with carbon monoxide in dogs and that cessation of ECG occurred at 19 minutes.[7] The study by Buhl[27] showed that asystole in horses occurred up to 15 minutes later which is similar to our study (up to 16 minutes later in the 2 horses with the longest infusion times which one had atrial fibrillation). Removing these 2 horses, absence of ECG activity occurred up to 12 minutes (mean time 8.3 minutes) postinfusion of euthanasia solution. Respiratory arrest was noted earlier with no observable or auscultable breaths by the end of the infusion. A few breath-like movements occurred at a time where EEG activity and brainstem reflexes were absent; and therefore considered reflexive (agonal breath: not a true breath).

In conclusion, an intravenous overdose of pentobarbital sodium solution is an effective, fast, and humane method of euthanasia. Rapid administration of an intravenous overdose of pentobarbital sodium solution might decrease the time to asystole after the infusion. Respiratory arrest occurs during or around the end of the infusion. Further, cerebral cortical activity becomes undetectable before the end or shortly after (less than 1 minute) the end of the infusion. This might support lack of conscious perception while brain death is happening. Brainstem function is absent next as evidenced by lack of

brainstem reflexes and BAER. Lastly, absence of ECG activity occurs at a time on which brain death has already occurred and there is no cardiac output as evidenced by undetectable heart sounds, arterial pulse, and MAP. It is possible that cardiac death occurs earlier and that the ongoing ECG activity represents ineffective contraction with no cardiac output (electrical mechanical dissociation) as the remaining cardiac muscle ATP is being utilized. Future studies should be directed at assessing brain and cardiac death in horses with severe illnesses on which cardiovascular or metabolic derangements, hypovolemia, and hypotension might compromise and extend the distribution time of euthanasia solution to reach the brain and heart.

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[2] IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF MISSOURI

No. 14-08000-CV-W-BP

RUSSELL BUCKLEW,

Plaintiff,

vs.

GEORGE A. LOMBARDI, DAVID DORMIRE,
and TROY STEELE,

Defendants.

Deposition of DR. JOSEPH F. ANTOGNINI, taken on behalf of Plaintiff, at 555 West 5th Street, Suite 4000, Los Angeles, California, beginning at 9:04 A.M. and ending at 3:27 P.M. on Monday, February 27, 2017, before Amanda J. Kallas, Certified Shorthand Reporter No. 13901.

* * *

DR. JOSEPH F. ANTOGNINI, the witness, having been administered an oath in accordance with CCP Section 2094, testified as follows:

EXAMINATION

BY MR. FOGEL:

Q Good morning.

A Good morning.

Q Dr. Antognini, my name's Larry Fogel, I think you met my colleague, Suzy Notton; we work for the

law firm, Sidley Austin, and represent the plaintiff, Rusty Bucklew, in this matter.

You okay if I call you Dr. Antognini –

A That's fine.

Q – throughout the course of the deposition today?

A That's fine, yes.

Q Excellent. And let's do a little housekeeping matter right off the top, here: You've submitted two reports in this matter; is that right?

A Yes. That's correct.

MR. FOGEL: Go ahead and mark this first report.

[7] (Whereupon Exhibit 1 was marked for identification by the court reporter and is attached hereto.)

MR. FOGEL: And I'll show you both documents.

(Whereupon Exhibit 2 was marked for identification by the court reporter and is attached hereto.)

BY MR. FOGEL:

Q Have you had a chance to look at both documents, Doctor?

A I did. Yeah, they appear to be the documents I submitted, the two reports that I submitted.

Q All right. And the first one, I believe it's marked Exhibit 1.

A Correct.

Q That is your initial declaration for November 2016 that you submitted –

A That's –

Q – in connection with this case?

A That's correct.

Q And does it appear to be a true and correct copy of your report including the exhibits thereto?

A It does appear to be, yes. And not having read [8] through the whole thing –

Q Sure.

A – but it appears to be.

Q Absolutely. And you also submitted a supplemental report, and you submitted that in February of 2016. Is what's been marked as Exhibit 2 appear to be a true and correct copy of that report?

A Yes.

THE REPORTER: And if you could just wait until he's done.

THE WITNESS: Oh, I'm sorry.

THE REPORTER: It's all right.

MR. FOGEL: That's actually a good reminder.

THE WITNESS: Yeah.

MR. FOGEL: So we'll just go over a few basic ground rules.

BY MR. FOGEL:

Q Have you sat for a deposition before, Doctor?

A Yes.

Q So I assume you're generally familiar with the rules, but as the court reporter just reminded us, I ask that you wait until I finish asking my question before you respond –

A Sure.

Q – and I'll, of course, extend to you the same [9] courtesy when you're answering the question. Inevitably, I will probably ask a question that doesn't make much sense, so please feel free to ask me to repeat it, if it's at all confusing to you –

A Inevitably, I'll probably give you an answer that – no, hopefully I'll be very clear, but . . .

Q So at least we're in agreement on that.

And then also feel free to take a break, if you'd like, at any point today. I'd just ask that you ask or complete a question that's pending –

A Sure.

Q – before you leave to take a break.

A Sure.

Q Before we get going, any other questions you might have?

A No. I do tend to – as my wife is so apt to point out, I do tend to interrupt people mid-sentence, so I will try to refrain from doing that.

Q I appreciate that. And that's why we have the court reporter here, to help keep us in line.

A Yeah.

Q So going back to your reports, can you describe your process in preparing them?

A I looked at the material that I was provided to me, and I – off the top of my head, I cannot remember all [10] the material that was provided to me by the attorney general's office, but it included – may I refer to my document here to see?

Q Sure.

A Yeah, I cannot remember exactly what was provided to me, they were some of the declarations by Dr. Zivot, and then the medical records for Russel [sic] Bucklew, and then some letters from some other physicians, including Franz Wippold, and then Larry Sasich, and Dr. Gregory Jamroz. And then a lot of the Court documents that are numbered.

I don't remember specifically what they refer to, I'd have to look at them again. And then there were some judgments from various courts including the Eighth Circuit Court and the Supreme Court and so forth, and then the Missouri – the injection protocol, the witness statements for 19 executions in Missouri.

So I took all those into consideration and reviewed those in preparation of my report –

Q And just to be clear for the record –

A And – excuse me.

Q Go ahead.

A I apologize, I –

Q Go ahead.

A And – and – and also, of course, during my research, I referred to some articles that I cited in my [11] report.

Q Thank you.

And just to be clear for the record, when you were listing those various sources that you consulted, you were reviewing an exhibit to your November 2016 report –

A Correct.

Q – as Exhibit B, your materials reviewed; is that – does that sound correct?

A Yes.

Q Okay. You also reviewed some additional materials that you notated in connection with your supplemental report; is that right?

A That's correct. And do you want me to . . .

Q If you flip to the last page of your report, at the header it says, "Exhibit A, materials reviewed"?

A Yes.

Q Is that the right page?

A Correct.

Q And just to make sure I'm clear on this: Are the materials that you reviewed in connection with your supplemental report the items that are listed –

A Yes.

Q – on this page?

There's no other list of materials that you reviewed?

[12] A No. No. That refers to what was below, which was the reference as cited, and then the studies that I cited there – or papers and then the package insert, and then my interview and examination of the – of Bucklew, and then the medical records of – through February 3rd of 2017, which includes the most recent imaging studies that were performed.

Q The MRI report for –

A Correct.

Q – for 2016?

A Correct.

(Whereupon the reporter requested clarification.)

MR. FOGEL: 2016.

BY MR. FOGEL:

Q And we'll go into more detail on those materials later on. So you consulted these materials and what else did you to – in preparing your reports?

A Well, I thought about the process by which a – as I understand the lethal injection protocol is implemented. To make a determination whether the – this particular inmate, based on the information that I've been provided in terms of his medical findings, whether this inmate would suffer pain, choking sensations, et cetera, as described by Dr. Zivot.

And I applied my understanding of the materials [13] that I reviewed in my scientific and medical background to his condition to make my assessment. Which, as you know, I do not believe that his medical condition is – would materially affect the – the action of the drug, or that it would cause him to have any additional – or any suffering or pain, excruciating pain, as described by Dr. Zivot.

I'm not sure if that answers your question, and you kind of asked the question in a very general way, but for –

Q Yeah, it was intentionally general –

A Yeah.

Q – in order to allow you sufficient space to describe everything that you did.

A Okay.

Q And prior statement, when you were talking about any suffering or pain, you were referring to one of the opinions you rendered in this case; is that right?

A That's correct.

Q Okay. And we'll go into a little bit more detail, but I want to make sure I understood what you said. Is it your opinion that Mr. Bucklew will suffer no pain and suffering?

A No. Can you elaborate about – you mean, no pain and suffering during the lethal injection? Or during the [14] execution process?

Q I just want to make sure I fully captured what you said.

MR. FOGEL: Do you mind going back to when the doctor was testifying about pain and suffering, and repeat what he said?

(Whereupon the record was read.)

BY MR. FOGEL:

Q So that last part is what my question was referring to: So your opinion is that he would not suffer any additional pain and suffering?

A That is correct. I mean, obviously, I think any – I think we all have an understanding, hopefully, that most modes of death do involve pain and suffering in some way. And my understanding of the lethal injection process is, that you have to start an intervenous line, that can be painful. Usually, not too painful, we do it all the time, patients having surgeries, but beyond that, the actual process, of where the drug is injected and so forth, would not cause any pain or suffering to somebody.

So there's always going to be a minimal amount of pain with a lethal injection process as I understand it, because you have to start an intravenous line, but beyond that, I don't see that this inmate would suffer any more than that.

[15] Q Okay. Who did you work with in connection with the preparation of your reports?

A Mr. Spillane.

Q Anybody else?

A No.

Q Do you have any assistants that you work with?

A No.

Q No graduate assistants?

A No.

Q When were you first contacted regarding this matter?

A I'm going to say it was August – I – I can tell you the specific date, because I believe I have the letter somewhere, but I got a letter, by Fedex, from Mr. Spillane. I think it was dated August 27th or somewhere around there, I'm not sure exactly when it was, but it might have been before that, a little bit before that. It was some time in August – or mid-to-late August –

Q Was that –

A – of 2016.

Q Was that your first involvement in this case?

A Yes.

Q Had you – have you worked with the Missouri State Attorney General's office before?

[16] A No.

Q Have you worked with Mr. Spillane before?

A No.

Q What did Mr. Spillane ask you to do?

A He asked me to provide my expert opinion about this particular inmate and whether his – well, may I – just pause for a moment. I cannot specifically – I mean, I'm going to give you my general understanding of what he asked me to do, but there may be some written documentation, where he has some specific questions that I could refer to, but I don't – what would you –

Q To make it easier, and not make this a memory test: How about I direct you to paragraph 3 of Exhibit 1, which is your November 2016 report?

A Okay.

Q And you see paragraph 3 –

A Yes.

Q – inner scope of engagement?

A Yes.

Q Does that help?

A Oh, thank you, yeah.

So I was asked to render my expert opinion, specifically, in general medicine and anesthesiology in regards to the actions and the efficacy of Pentobarbital, especially related to Missouri's lethal injection [17] protocol. And also, the efficacy of Pentobarbital in this particular inmate, Bucklew, who has this cavernous hemangioma.

(Whereupon the reporter requested clarification.)

THE WITNESS: Has a cavernous hemangioma.

BY MR. FOGEL:

Q Doctor –

A Yes.

Q – let me ask you, does paragraph 3, Scope of Engagement, accurately summarize everything that you were asked to do in this matter?

A Yeah. I think it does. I mean, there might be – again, not – not making this a memory test, I believe that captures everything, I mean, there might be something I missed that I provided opinion in, but I think that captures pretty much everything.

Q What is anesthesiology?

A That's a field of medicine that describes – I should – that is involved with the administration of anesthetic to patients who are having surgeries or painful procedures. So we're physicians who specialize and go to residency for that, and render patients unconscious and, in a sense, during surgical procedures. That's part of what we do, but some people are also involved in critical care medicine, pain medicine, sort of, some of the [18] branches off of anesthesiology.

Q Is Pentobarbital a type of anesthetic?

A Yes.

Q Have you worked with Pentobarbital before?

A Yes.

Q What is your experience with Pentobarbital?

A I've used it in settings where patients would require Pentobarbital for induced coma, or to induce – to decrease activity in the brain.

Q So could you help me out here, because I'm not a doctor –

A Yeah.

Q – and no prior education in the area –

A Sure.

Q – of anesthetics, how does Pentobarbital induce whatever you were just –

A Yes.

Q – describing?

A Okay. Well, the – the short answer is, we don't know. We don't know how anesthetics work, how they truly work. We know the Pentobarbital, like other anesthetics, work with what's called a GABA receptor – G-A-B-A – G-A-B-A, GABA receptor.

The GABA receptor is something that we all have. And when the Gaba receptor's active, it allows chloride [19] ions to enter into the cell, and causes the cell to become what we call hyperpolarized, and makes it less likely to fire. And when it's a neuron, like a neuron in the brain, then it's less likely to fire, and that produces the anesthetic effect, it produces unconsciousness, and the other things, immobility and so forth.

But we don't truly know how the [sic] work – we know how they work at a receptor and cellular level, but how they end up resulting in a system – what we call a system effect. That is, how they produce the actual unconsciousness, we really don't know. I mean, nobody knows for sure, that's the simple answer. We have a lot of pieces of the puzzle, but we don't know for sure for any of the anesthetics.

Q Do all anesthetics render a patient unconscious?

A Local anesthetics, obviously, by definition of anesthetics that leaves the term, local anesthetics, that's something we use for when you get a dental procedure done, that numbs up the nerve, so that does not cause unconsciousness in a dose as it's administered, but an anesthetic, when you use the term,

anesthetic in the sense of sort of general anesthesia, then yes, they all produce unconsciousness. Because that is the – that is one of the three essential endpoints of – of anesthesia, which is unconsciousness.

[20] Q What are the other two endpoints?

A Amnesia, and then immobility. So patients don't want to remember their surgery, patients don't want to be awake during the surgery, and physicians, specifically surgeons, do not want a moving patient during surgery. So the three special endpoints, as I described them – now some people would also argue that analgesia is an important endpoint. But analgesia is, in my mind, and I may be a minority in this, but, in my mind, analgesia is not a required endpoint of anesthesia.

Q What is analgesia?

A So analgesia basically means something that – that – or an analgesic, for example, would be a drug or something that – that lessens pain. So, for example, if you were out playing soccer or whatever and you hurt yourself, you might take Ibuprofen or you might take Tylenol, or maybe, if you'd had surgery on your – dental surgery, you might take Tylenol with Codeine, those medications decrease pain, they provide some – they have analgesic properties, they provide that.

But in order to be, again, this sort of gets into the semantics side more than anything else, in order for you to, in my mind, classify a drug as analgesic, the patient has to be awake. The patient has to say, "Oh, yes. I took this drug. My pain is less." But [21] anesthetics, by definition, if given a sufficient dose, makes someone unconscious, so they're not awake to be able to perceive pain. So analgesia is not really important in that setting, from that particular aspect.

Now, some people – oh, I should say, so when you're having surgery and the surgeon makes an incision, your heart rate will go up, your blood pressure will go up. Even though you're unconscious and you may not move and you're not going to remember, but you're going to have these, you know, physiological responses to that. Now, you are a relatively young man –

Q Thank you.

A – and you look in very good health.

Q Thank you.

A And if I were to anesthetize you, and your heart rate and blood pressure were to go up, it's probably not that critical to me or to you that I treat that. I probably would give you something for that, but I – it wouldn't be necessary during the surgery, but most people would anyway.

If your grandmother was having surgery, let's say she's in her 80s, if her heart rate and blood pressure goes up, I'd be more concerned about that because that might be more harmful to her, so I'm more concerned about providing analgesia – or analgesic-type of drug during [22] surgery for her. But it's not – it's a long answer to your question, but it's, in my mind, analgesia is not a critical component or a necessary component of an anesthetic.

Q So let me ask a few follow-up questions based on what you just explained.

A Sure.

Q Which is very helpful, thank you for that. Is the pain irrelevant when someone is unconscious?

A Is pain irrelevant?

Q Irrelevant when someone is unconscious.

A I want to make sure that we have an understanding of the terms: So pain is the conscious awareness of a noxious stimulus.

Q Excuse me, you said of a noxious?

A Noxious stimulus.

Q What's –

A Noxious. So something that causes tissue damage. So if I took a sharp instrument and poked you in the hand with it, that would be noxious, it would be painful to you.

Q But what about choking? Is choking, would you consider that painful?

A Choking, I wouldn't consider it painful, I mean, [23] it certainly is distressing.

Q Well, let's get away from the word "pain."

A Yeah.

Q Self [sic] – is it a type of suffering?

A Yes. Absolutely, yes. Choking would be a suffering, you know, you would have what I would describe as suffering sensation from that.

Q And is choking, or that type of suffering, irrelevant if someone is unconscious?

A In my opinion, yes. They're not going to be conscious and – and aware of that sensation. If they're unconscious from a – from a drug and choking or the lack of breathing, in my opinion, they would not be – they're not aware, so they can't have the suffering component that we think about.

Suffering is a word or term describing sort of the emotional component of all this; right? So – so suffering is an emotional part, and you can't have emotions when you're unconscious. I mean, you don't . . .

Q Doctor, you're – your practice is as an anesthesiologist for some time; is that right?

A Yes. That's correct.

Q And you've administered an anesthetic for a patient who was unconscious during a procedure?

A Yes.

[24] Q If that patient started choking during the procedure, would you say that it was irrelevant, it didn't matter, because they were unaware of the choking?

A Well, that is not – it's not – make sure we understand each other in terms of the question and the answer.

So if somebody was choking during surgery, and I'll use that term because that's the term you're using, but someone who has an airway obstruction during the surgery, that's an emergency; right? One of the things that we have to do as an anesthesiologist, of course, is to maintain breathing during surgery, and that requires an unobstructed airway. And that's a medical emergency. I' not worried that the patient is suffering, but I am worried that the patient may die because they have an obstructed airway. Those are two different things.

Q I appreciate that. And certainly, we want to be very concerned of whether the patient lives or dies, but why are you not concerned whether the patient is suffering or not?

A Because suffering is not – again, it's a – it's a term describing someone's emotional – what's the word I want to use? – basically emotional response to that particular situation. And it requires someone to be awake. So let's, just to – maybe, so I can clarify my [25] answer to this.

Q Well, I – sorry, do you mind if I just have a quick question on this?

A Yeah.

Q But if you want to finish your answer, go ahead.

A Well, let me just finish this to clarify this: So, getting back to you having surgery, if your blood pressure increases and your heart rate increases, I'm not concerned that you're suffering in the sense that if – if you – if we were doing surgery on you, with you awake, we would all agree, I think, you'd be – you'd have suffering. Because you're awake and you have a surgical incision and so forth; you're experiencing pain. I'm not concerned about that – that part of it, when you're unconscious, because you're unconscious. You don't – you don't have that emotional reaction that you would have when you're awake.

Now, you could have – certainly, you could have the physiological responses to that stimulation. That is, your blood pressure would go up, your heart rate would go up, and I would be concerned – potentially concerned about that. But I'm not concerned about the emotional part of it, because you're not having those emotional reactions.

Now, I will be honest with you, there is some [26] indication in the field now, that there may be some imprinting on the brain, so to speak, where people might – even during a normal anesthetic, there might

be some – oh, how should I say this? – that there might be some lasting effect of – of the surgery, and potentially that – I'll just leave it at that: That there might be some lasting effect.

Q Are you referring to anesthetic awareness? Or is that something different?

A That's something different in a sense that that is something that, you know, where, in general, there's a lighter level of anesthetic and so people are awake during their surgery, that's basically where there's insufficient anesthetic. And I'm talking more about even deeper levels of anesthesia. But we've been doing this for over 150 years and people come out of surgery just fine, so I think if anything is going on in terms of anything else, you know, aside from the physiological responses, it's – it's going to be minimal.

And – and – and it happens every day, you know, people having surgery and anesthetic every day, so I don't think that there's anything going on there in terms of any long-lasting effects of what you're getting at as a [sic] potentially suffering. I just don't think suffering has occurred in the sense that you're – we think about [27] suffering.

Q Well, let's make sure we're talking about suffering in the same way, because I've heard you use the term "emotional response." What do you mean when you say emotional response?

A So I'll give you an example of – of this in the literature. So there is a part of your brain called the amygdala, which is near the hippocampus. The hippocampus is important to memory formation. The amygdala is important for the emotional component of memory.

So as an example, I remember where I ate dinner last night, and there's nothing particularly emotional about that. But if I had been mugged after dinner, it'd be a lot of emotions attached to that, you know, the threat and so forth, you would go through a lot of emotions, so there would be an emotional component to that. And that emotional component is – is determined, in some regard, in some – some degree, with the amygdala, so there's two separate – at least two separate parts of our brain – there's more than that, but when I'm talking about the hippocampus and the amygdala – the amygdala's more about the emotional aspect and the hippocampus more is about the factual parts.

So if my amygdala had been destroyed somehow before last night and I had been mugged, I would be able [28] to provide to you the details of the mugging, but it wouldn't trigger any particular emotional response in me. So there is a emotional [sic] response, that – that sort of gut terrible feeling that we get when something bad happens to us. And then there's just sort of the factual part; I remember what I had for dinner last night, it wasn't particularly –

Q So –

A – you know, emotional.

Q Can – can I interrupt you, because I don't – I think I follow your analogy, and what you're explaining here, but I want to get to the more specific point: Is it your opinion that if someone cannot experience an emotional response, that they are not experiencing suffering?

A Yes. I think that – that summarizes, for the most part, what I'm saying, yeah. Suffering is a – a –

I mean, to me, suffering and pain are in the same category; you have to be awake to experience it.

Q So during the procedure, if somebody starts choking, which I think we discussed earlier would be a type of suffering, because they cannot experience an emotional response while they're unconscious, you would not consider that suffering?

A That's correct. So if I could elaborate, though, [29] on that, you might be able to determine some physiological responses to the choking, you know, maybe their heart rate would change and so forth. Just like you could do that with pain – I mean, sorry, with a noxious stimulus during surgery, but you're not forming – having the same type of formation of emotional – the emotional response or the emotional aspect of all that when you're unconscious.

Q Why – why are you focused on the emotional response?

A I'm not. You're – you're – you're asking a question about suffering, and I'm trying to put it in words that you can understand, that suffering is a – a term that I believe is used, maybe in this context is used incorrectly, because you seem to think that suffering is something that can happen when you're unconscious, and I'm saying that it can't.

Because suffering is a – the – the – the – suffering has an emotional part to it, and you don't have that emotional part, and also, you have to be awake for it, to suffer. I mean, how could you – I mean, maybe I should ask you, can you explain to me how you – how you would have suffering in somebody who is unconscious? I don't – I don't see how that can happen based on my understanding of how – how all this works.

Q Well, fortunately the way today works, I'm the [30] one who asks the questions –

A I know.

Q – and you're the one who gives the answers.

A I understand that.

Q You're the expert here. And I'm not opining or offering any of my own opinions –

A Sure.

Q – we're here for your opinions and –

A Got you. I know, I know. I think I've answered as best as I can.

Q And I appreciate that.

Now, we – you talked about an individual's weight, their blood pressure, does that affect the quantity of the anesthetic or the chemical that you administer?

A If it's a drug like Pentobarbital, then the weight does – it does matter.

Q Why does the weight matter?

A Well, I mean, if you're giving – usually, we dose a drug on a per-kilogram basis, per-weight basis. So you take a 3-kilogram baby, and you give an intravenous drug, you would give a lot less to a baby than you would 100-kilogram [sic] man, because 3 kilograms versus 100 kilograms. So for an injectable drug, you would give a small amount. So . . .

[31] Q And does the amount you administer affect how quickly or how long it takes for someone to succumb to the effects of the anesthetic?

A Yes.

Q Meaning how long it takes for them to become unconscious?

A Yes.

Q So what other characteristics, besides someone's weight, would you take into consideration when determining the quantity of the anesthetic to administer?

A Again, we're talking about an injectable drug like Pentobarbital?

Q Sure.

A So besides the weight, you would be concerned about several factors: Actually, one would be their age, one would be other medications that they're receiving, one would be their other conditions, medical conditions.

Q Well, I'll let you complete your list and then we can go back.

A Those are the three that come to the top of my head. I'm probably missing some others, but those are some of the important ones I think.

Q Why is it important to take into consideration the medications that the individual may be taking?

A Well, because there – you can have drug [32] interactions with –

(Whereupon the reporter requested clarification.)

THE WITNESS: You can have drug interactions.

BY MR. FOGEL:

Q C-A-N.

A Yes. C-A-N.

In – in a clinical setting, some of the drugs that we give can interact or maybe either in a positive way or

a negative way. So if somebody's on a – an opiate of some sort, they could be tolerant of that. Or if they're acutely intoxicated from something, then that has to be taken into consideration. So there are a variety of different drug interactions that can occur.

Q And what is the import of the drug interaction? Could it prolong the effect of the anesthetic? Could it diminish the effect of the anesthetic? What are the potential consequences of the drug interaction?

A Could prolong it, could shorten it, potentially.

Q It depends on the type of medication, how frequently –

A Yes.

Q – the individual's been taking it, and those are all things that the person applying the anesthetic would need to take into consideration?

A Yes. That's correct.

[33] Q You also mentioned medical conditions?

A (Inaudible response.)

Q Why is that important?

A Well, if somebody has a serious medical condition, such as they're – have renal disease, that can affect how much drug you give, usually, you're going to give less of it. Especially if they've just had hemodialysis, that's just one example, if somebody has heart problems, congestive heart failure, that could affect the – how much drug that you give. So those are just examples of some of the considerations that you'd take into – you want to think about.

Q And I believe, as you mentioned, it could affect how long it takes before the drug takes effect?

A Some of these – yes – conditions could do that.

Q So it's unique to the individual?

A Yes.

Q Would you have used – when you – let me make sure I have this right first: I – I believe you said you have used Pentobarbital –

A Yes.

Q – in a clinical setting in the past?

A Yes.

Q What quantity of Pentobarbital have you used in those settings?

[34] A I do not remember, and this is a long time ago, I have not used it very – I haven't used it at all, probably, in the last 15 to 20 years. So it was a long time ago, when Pentobarbital was more in vogue in terms of producing a coma. I don't think it's used as much anymore these days. So the doses were probably in the range of several milligrams per kilogram, as my recollection, and usually was given as an infusion after that. So clearly a lot less than the dose that is used in lethal injection. I don't think anybody – well.

Q No. No. Go ahead.

A I was just going to say, I don't think anybody has an experience with that dose, except for the people that use it for lethal injection. It's not used clinically, of course, in that dose.

Q When you used Pentobarbital, I believe you said, 15 to 20 years ago approximately –

A Yeah.

Q – had you used it several times in the period – period that you used it?

A I would say probably not more than two or three times, is my recollection, so very limited use.

Q Is Pentobarbital generally infrequently used as an anesthetic today?

A It is. I know you're thinking frequent is – [35] right, I think it would have to be rare, if, at all. I don't think anybody's using it or I don't think anybody should be using it as an anesthetic in humans.

Q How –

A Because we have such – much better drugs now.

Q How did you familiarize yourself with Pentobarbital and its effects as an anesthetic in order to render an opinion in this case?

A So Pentobarbital –

Q Well, let me ask a – a first question: Did you think it was necessary to familiarize yourself with Pentobarbital in preparation for your reports in this case?

A Yes. In some of these – some of the – the issues that came up, absolutely. And –

Q And so how did you go about doing that?

A I looked at the – I compared, primarily, the effects of Thiopental to Pentobarbital, because Thiopental's a drug that many people in my age and background have used. Because when I was first learning anesthesiology and training, and then after that, we used Thiopental for induction. This is before Propofol came out, so I used Thiopental many, many times. And Pentobarbital is very similar to Thiopental. It's not

obviously the exact same thing, they have some structural [36] differences, but I was mostly concerned about the onset of action of Pentobarbital relative to Thiopental. In terms of determining my report.

And then looked at basically the – yeah, I was primarily concerned with the onset, and then also blood levels of the Pentobarbital relative to its clinical effects. In terms of coma, and lethal amounts, and things like that. So that was sort of the – the – the main area that I focused on. In terms of trying to – to look at what are the effects of Pentobarbital.

And I felt that was important because, obviously, from my report and the reports that we have – reports that we have from Dr. Zivot, there is a disagreement about the onset of action and how deeply someone achieves coma or go [sic] into coma after the injection. And I – it's my opinion that based on kinetics of the drug, and the way the drug happens, is unconscious [sic] will happen within 20 to 30 seconds and I think that the data that's published out there supports that.

Q What sources, specifically, did you rely upon to conclude that Pentobarbital would render somebody unconsciousness [sic] in 20 to 30 seconds?

In the quant- – and I assume your opinion is limited to the quantities that are administered pursuant to the Missouri execution protocol.

[37] A That is correct. Although – and I'll elaborate on this, I think even a much lower dose of Pentobarbital will achieve coma, but they use 5,000 milligrams. So I relied on two –

Q When you say "coma," are you meaning unconscious? Are you using those terms interchangeably?

(Whereupon the reporter requested clarification.)

BY MR. FOGEL:

Q Are you using those terms interchangeably?

A I probably shouldn't use them interchangeably. I think for the purposes of our discussion here, we could do that, but coma and unconscious are not the same thing. So basically, if you think of a – of – of a VIN [sic] diagram, so a VIN [sic] diagram, this would be unconsciousness and coma would be a part of that, so you can be unconscious, but not necessarily in a coma. So if I were to be more precise, I should not use those terms interchangeably. So maybe I – in the future, I will not do that.

Q Sure. So let's focus on your specific opinion in this case, then.

It's your opinion that the quantity of Pentobarbital administered pursuant to Missouri's execution protocol would render the subject unconscious in 20 to 30 seconds; is that right?

A That is correct. That's my assessment.

[38] Q And my question is, what sources did you rely upon in forming that conclusion?

A I looked at the package insert for Pentobarbital, and then I also relied on a paper that was published by Ehrnebo – spelled E-H-R-N-E-B-O – that I referenced in my supplemental report that looks at the pharmacokinetics and distribution of Pentobarbital in humans.

Q Did –

A So the way I did it –

Q Sorry, did you rely upon any other information or sources?

A For this particular report that I have submitted, those are the two that I – I looked at. Now, as I've mentioned to Mr. Spillane, subsequent to writing this report, I did find another study, which I think runs credence to my opinion, but it's not contained in the report, here. And I can provide that report to you or – or . . .

Q Are you relying – relying upon that report in forming your conclusion that it would last – excuse me, that unconscious [sic] would set in within 20 to 30 seconds?

A I would say I – probably, the answer is yes, in the sense – I mean, I feel more confident in my answer – I was very confident in my answer before I saw that report, I'm even more confident now in my answer.

[39] Q Then, yes, we'd – we'd like to be provided with at least the name and title –

A Yes. I can give it to you now –

Q – of that report.

A – if you want?

Or do you want to wait?

Q You can give it to us during the break.

A Okay.

Q So those three sources are the only source- – are the sources –

A Those –

Q – in the entire universe that you relied upon to conclude that 20 to 30 seconds is what –

A I'm sorry, not –

Q – it would take for unconsciousness?

A – not everything. And then, of course, I looked at the witness executions – I'm sorry, the – yeah, the execution witnesses, the 19 reports that were provided to me, where people that talked about – you know, who had observed prior executions, and said that, you know, the inmates seem to be unconscious very quickly and so forth, so that, I also relied upon.

And then, I – I relied upon my – again, my understanding of how these barbiturates work – Thiopental, Pentobarbital – especially when you think [40] about the massive doses that are given to form my opinion.

Q Have you ever participated in any sort of setting, whether it be a clinical or academic setting, where you've administered Pentobarbital in this quantity to some subject?

A No.

Q So you've never observed the effects of Pentobarbital on somebody when it was administered in this quantity?

A No.

Q Did any of the treatises or sources that you previously mentioned specifically state that Pentobarbital would render the subject unconscious in 20 to 30 seconds?

A Lets see here. The third report that I described to you, that – that I will provide to you, has a paragraph in the discussion – so the – the third report that I mentioned is a dog study, but in the discussion section, they talk about the effects of Pentobarbital in man, where they're looking at the electroencephalogram, and my recollection is that they said within I think it was 15 to 30 seconds, I can't remember the

exact number of seconds, that they observed the clinical – the changes in the EEG in man.

Now, obviously, in the dose that was used in that study had to be a very small dose relative to what's used [41] in – in Missouri, because you wouldn't be given [sic] any lethal dose of Pentobarbital to man to study the effects. But again, that sort of added more, I think weight to my argument, that this drug is going to act very quickly, in the 20 to 30 seconds, and make somebody unconscious. I hope that answers your question.

Q I –

A Sometimes my answer's so long, I forget what the question was about.

Q To make sure I'm clear: That report did not state that it takes 20 to 30 seconds in order for a patient to be rendered unconscious?

A It did not. It stated that the changes in the EEG occurred – started to occur within I think 20 to 30 seconds or whatever that – I think it might have been 15 to 30 seconds. So the drug –

Q This – this was the study regarding dogs; is that right?

A Well, yes. But in the discussion section of the paper, they sort of threw in this paragraph, where they said almost, "By the way, we also have given this Pentobarbital to humans," comparing it to Thiopental. And the onset of action of the Thiopental and the Pentobarbital on the EEG was about – it was the same. There was a small delay with the Pentobarbital, in terms [42] of the full effect, so basically, after a minute or – minute, they had the full effect for – for Pentobarbital. They don't really describe what that

full effect is. And they don't say what what the dose was either. But to me, when they talk about the effect on the EEG began the electroencephalogram, is what the EEG is, when Thiopental. and Pentobarbital had the same onset, again, it – it makes me believe that, in this – with this dose of Pentobarbital, you're going to have an onset of 20 to 30 seconds; it's going to be like Thiopental.

I think – I want to make sure we're clear about some of the kinetic issues, here. When you're comparing Thiopental to Pentobarbital if I may . . .

Q Well, let me stop you because I don't want to go too far down. Because we haven't had a chance to review that report.

A Sure. That's fine.

Q So it might be a little premature to probe that.

You did not render an opinion – the opinion I'm referring to, that Mr. Bucklew would be unconscious, as well as any subject would be unconscious, within 20 to 30 seconds after the administration of this quantity of Pentobarbital. Did you render that opinion in your opening report?

A I did not. I said – I used the term rapid onset [43] of unconsciousness followed by death is the term that I used. I did not say instantaneous.

Q I understand. And we're not here to do that. I'm talking specifically about your opinion –

A Yeah.

Q – that it would render him unconsciousness in 20 to 30 seconds.

A That was in my second report, as I remember. Where I got more specific about the timing.

Q And let's – so – so let's turn to your second report.

A Sure.

Q And that's Exhibit 2 before you.

A Yeah.

Q And if you could turn to paragraph 5, which is on page 3.

A Uh-huh.

Yes, I have it here.

Q And it's a paragraph that begins, "the intravenous administration of 5 grams of Pentobarbital –

A Yes.

Q – would result in rapid unconscious [sic]." And then the next sentence starts, (reading):

> "I clarify that opinion, that the rapid onset of unconscious [sic] would [44] occur within 20 to 30 seconds after the administration of the large dose of Pentobarbital. To reiterate and expand on my earlier statements"

And then you –

A Uh-huh.

Q – go on to expand further.

Why did you think it was necessary to expand upon your earlier statements, to specify that unconsciousness would take effect in 20 to 30 seconds?

A Well, it was primarily because Dr. Zivot took issue with my use of the term "rapid onset of unconscious [sic] followed by death." And he basically said, "Well, there's a period between the – when the drug is administered and when death occurs," and that's the period during which the inmate will, in his opinion,

have such sensations of choking, gasping, and so forth. And suffering.

So he seemed to indicate that there – there would be this period, during which the inmate is lingering and languishing in this sort of semiconscious zone, and, again, experiencing these sensations. And this was my way of basically refuting that argument, by providing more detail about what I think is occurring. In terms of the onset of unconscious [sic] and then what would be occurring after that.

[45] I mean, I think we all surely must agree that 5,000 milligrams or 5 grams of Pentobarbital is a lethal dose. It's been demonstrated in other lethal injections. There's no doubt – or should be no doubt in anyone's mind that it causes death.

Q Without –

A So –

Q Without any equivocation, it causes death? 100 percent?

A Pro- – with – with – unless there's issues with administration, which we all also agree, that there has to be a proper functioning IV and all that, you know, 19 executions have, to my knowledge, and the information that I was provided, it caused death within around 8 to 9, 10 minutes, so –

Q Are –

A Are –

Q – you done?

A No, I'm not.

Q Okay. Go ahead.

A So we have to sort of figure out, okay; well, how – how does a drug kill somebody? What are the – what is the physiological and pharmacological ways in which that drug would kill somebody at that dose? And that's why I laid out this – and this is not a complete [46] sort of diagram or – or – or way of looking at it, but this is sort of my understanding of how this drug probably is killing somebody, is producing rapid, deep unconscious [sic], respiratory depression, followed by loss of – or – or complete absence of respiration, decreased oxygen levels, slowing of the heart rate, and then the heart stopping. And then during all of this, we also have cardiovascular collapse because the blood pressure is plummeting.

So that is the mechanism by which the physiological steps, so to speak, by which this drug causes death. And I just wanted to sort of lay it out for people to understand what I think is occurring with this. That's why I went into that detail.

Q Are you relying on any information that someone from the attorney general's office told you regarding the length of time until unconscious [sic] sets in?

A No. No, I have not been provided. I mean, I have the witness statements.

Q But no other information was provided to you to support – from the State – to support your opinion, that Mr. Bucklew or someone else would be rendered unconscious in 20 to 30 seconds?

A No. Uh-uh. Not to my knowledge, no. I – I – I – it was my – it's my opinion, and was then and is now, based on the – the action of that drug, [47] especially when – when comparing it to Thiopental. Remember, I've never given 5,000 milligrams of Pentobarbital

to anyone. And neither has your expert witness, I presume. Or anyone else in –

Q So you have no personal experience to draw upon, in order to support your conclusion that Mr. Bucklew would be unconscious in 20 to 30 seconds?

A I do not have any personal experience with the use of that drug at that dose, no. Which is why I make the comparison between Thiopental and Pentobarbital. I know how Thiopental – quickly Thiopental works.

Q Is Thiopental – say the word one more time, please.

A Thiopental.

Q Thiopental.

It's another type of anesthetic?

A Barbiturate.

Q Barbiturate.

A In fact, the only difference between Thiopental and Pentobarbital is one atom.

Q Is it used on humans?

A Thiopental?

Q Uh-huh.

A Yes. It's not used very often anymore, and it's probably not used – it's not used in the United States [48] anymore, but it's probably used in other parts of the world. And it was used very commonly for a long time.

Q The Thiopental, that was the chemical that was referenced in the study concerning its effect on dogs; is that right?

A That was one of the drugs that was used. There's actually multiple barbiturates that were used.

Q But that's the study that you referenced?

A Yeah.

Q Could it be longer than 20 to 30 seconds?

A At this – at – at the dose of 5,000 milligrams, I don't think so, no.

Q So you can say, with 100 percent certainty, that anybody who was administered that quantity of Pentobarbital would be rendered unconscious in 20 to 30 seconds?

A One of the things I learned in medical school is never say always and never say never. So I – 100 percent certainty, more like 99.99 percent certainty. I mean, I cannot – there may be some very peculiar thing occurring that would prevent someone from being unconscious within 20 to 30 seconds, I can't think of what that might be, I mean, of course we've already talked about making sure the administration is appropriate, they have a well-functioning IV, that certainly would have affected [49] things. If you had a very slow circulation time, very slow circulation time – and that term, I use, is somebody who has a very low blood flow in their body because their heart's not working properly, let's say, or their – their fluid levels is [sic] very, very low, so their – there's not much blood circulating. We call that slow circulation time – that can affect the onset of these drugs. But Mr. Bucklew –

Q What – what about somebody's weight? We – we talked earlier about somebody's weight –

A Yeah.

Q – their medications, their medical condition, those are all things that could affect the onsets of the drug as well; correct?

A Yes. But you have to make sure we're understanding something, here, which is that some of these effects we're discussing may be clinically relevant in the sense of the – a clinical dose, but not with the dose of 5,000 milligrams. Even those conditions are not going to materially affect, save, perhaps the issue of a slow – slow circulation time. That potentially could affect the onset of Pentobarbital even in 5,000 milligrams.

Q The other two reports that you said you relied upon, could you remind me which ones those are in your report?

[50] A It was a study by Ehrnebo – Ehrnebo – Ehrnebo, I'm not sure how it's pronounced, but it's –

Q The pharmacokinetics study?

A And distribution properties of Pentobarbital in humans following oral and intravenous administration. And that was published in the Journal of Pharmaceutical Sciences, I think. I just have it as pharm sciences.

Q I see where you're referring to. And what was the other one?

A It's the package insert.

Q The package insert.

A Of Pentobarbital, yes.

Q Does the package insert specify how long it takes to render someone unconscious?

A It just says immediate. As I recall. May I – if I may refer to it, I think that's the term that is – the word that is used. I have it here, if you want to – unless you have it. I have it here (indicating.)

Although, you're probably going to enter it as an exhibit, so this copy's going to be mine.

Q Here we go.

A Maybe I cannot – I'm not sure –

MR FOGEL: Let's – let's go ahead and just put this in as an exhibit.

(Whereupon Exhibit 3 [51] was marked for identification by the court reporter and is attached hereto.)

THE WITNESS: So I – may I continue?

BY MR. FOGEL:

Q Well, just make sure you – you've just been handed an exhibit that's been marked –

A Yes.

Q – or a document that's been marked as Exhibit 3. Is this, from your review, a true and correct copy of the package insert that you were just referring to?

A Yes. It looks like it is, yes. Yup.

Q Okay. Just wanted to establish that. Go ahead.

A Yup. So I said earlier, just a moment ago, immediate, I –

Q Uh-huh.

A That's my recollection. But there's lot of stuff here, and I'm not sure that's exactly what it says, so I don't want to commit myself to that word until I've found it and then – see if I can. . .

Q Well, you did not point to this in your report. I understand that you reference this report, but you did not point to this specifically for that assertion that –

A No, I did not.

Q – would be rendered in the –

[52] A I don't think so. I mean, I thought I had something like that, but I didn't – I used this primarily because of the table they have there, in which they describe the barbiturate levels relative to the different C-N-S depression.

Q So we can put that to the side –

A Yeah. Okay.

Q – for now.

And then the pharmacokinetics report that you reference, did that specifically state that an individual be rendered unconscious in 20 to 30 seconds?

A No, it did not.

Q And then the other source you relied upon were the witness statements?

A Correct.

Q And is it your recollection that those witness statements asserted that the individual was rendered unconscious in 20 to 30 seconds?

A They did not specify – in some cases, they specified within half a minute to a minute. In other cases, they specified longer. Sometimes they didn't specify at all, just that they were quickly rendered – you know, they seem to be unconscious or whatever term that they used. Obviously, the witness statements, they're not medical professionals, they may not know what [53] they're looking for, so you can't

take it – you have to take that with a grain of salt, which I admit to. But the witness statements are consistent with my impression or my opinion that the drug is going to act within 20 to 30 seconds to – that that's the dose to make somebody unconscious.

Q So I want to make sure we're very precise, here: I believe you said it would act within 20 to 30 seconds to make somebody unconscious. Is the individual unconscious at the end of the 30-second period? Or are you saying that the drug starts to take effect in 20 to 30 seconds, but they might not be unconscious?

A Well, let's see, how do I want to answer that. I'd say that the – they are unconscious after – 20 to 30 seconds after the drug has been administered. Does that answer your question?

Q And in part [sic].

You're – are you defining administered from the moment the Pentobarbital starts to enter into the individual's circulatory system, via the IV line?

A Yes. It starts – it may and – you know, I – one thing – one piece of information that I do not have, and I – and that's how – how fast the drug's injected, that is not something that's – either it's not known or it's not provided to me. I don't know how quickly it's [54] injected, but I – I – my guess would be that it's probably injected – were talking about 100 CCs, 100 MLs of the drug –

Q Are you –

A – is my understanding, so it takes some time to inject it.

Q Do you understand that there are two syringes of 50 CCs?

A Yes. And I believe they use – they use both of them. They're both hooked up, one syringe has 2- – 2.5 grams, the other syringe has 2.5 grams. That's my recollection.

Q Is it your understanding that they're injected simultaneously?

A No. They're – I believe they're injected one after the other.

Q Do you know how long it takes to inject the respective 100 CCs?

A I have not provided – been provided with that information, so I don't know.

Q And when you say – as I just parroted you, the – how quickly the – it – it's injected, what – what do you mean when you say that?

A Well, usually, when you talk about an injection rate, you say 1 – 1 CC or 1 ML per minute – I mean, for [55] a second. So every second, a milliliter of a solution goes in. So if you have to inject 100 milliliters, it could take 100 seconds to inject. I don't know whether these are both hooked up to the IV line or they have to take one off and put the other one on, I don't know how that part works.

Q So if there's one syringe of 100 milliliters, and that could take 100 seconds to be fully injected, and then another syringe of 100 milliliters, which would take another 100 seconds, that's approximately three minutes if – and that's assuming it's 1 millimeter [sic] per second before the Pentobarbital's fully in the individual's system; is that right?

A I believe you might have that a little bit off. I believe that there are two syringes –

Q You're right.

A – of 50 –

Q Of 50 milliliters.

A – each. So it would be 50 and then another 50.

Q Okay.

A So if it was one MLs – one ML per second, then it would take 100 seconds for all the drug to get in. Which would be almost – close to two minutes. Now, if we could certainly talk about while based on my analysis of that study, what blood level do you achieve after just 100 [56] CCs of the drug? I believe that you achieve the sufficient drug level to make somebody unconscious. So, again, that's why I'm thinking about, it's not going to take very long for that first part of the Pentobarbital to get in, to make somebody unconscious. You don't need 5 grams of Pentobarbital to make somebody unconscious; you only need probably – make to use volumes, part of it [sic].

You don't need 100 MLs of that Pentobarbital to make somebody unconscious; you probably only need 10 MLs to make somebody unconscious.

Q Do you – do you – you don't know how quickly the Pentobarbital is injected into the individual, do you?

A No.

Q Was that information provided to you?

A No.

Q If it takes – could – would that affect your opinion in terms of how long it would take for the individual to be rendered unconscious?

A At the extreme, yes. I mean, if somebody was injecting that at 1 ML per hour, then that would affect

the onset. I mean, that's sort of the – that's sort of an extreme example, almost an absurd example of that. You know, absolutely, the speed of injection could affect it. But based on my understanding of how quickly these inmates die after the beginning of the process, again, it sounds [57] like, based on the witness statements and so forth, that death occurs within 8 to 10 – to 10 minutes, after the injection is started or the execution process starts.

I mean, it has to – the – the injection can't – you know, it has to be probably one or two minutes at most, I would imagine. I don't know for sure, but that's just sort of my – my – my – my guess. I – but I have to guess, I think anybody does, because that information has not been provided to me, at least.

Q So you can't say for certain – you don't know for sure how long it could take for the individual to be rendered unconscious?

A I still feel very confident in how long it takes. Because I don't think that the injection – the – the – the length of the time of the injection, how long it takes, it would only be materially important if it was a very, very slow injection. So, again, we're talking about 1 ML, maybe, 30 – per 30 seconds or whatever, I – you know, I – I would have to do the numbers, I guess, to – to – to see what it would be, but. . .

Q If a witness – you relied, at least, in part, on the witness statements; is that right?

A Yes.

Q If a witness had reported that it took several minutes for the drug to take effect, would that change [58] your opinion at all in terms of how long it takes for someone to be rendered unconscious?

A No. Because – and – and, again, I'm looking at this – I'm – I'm interpreting these witness statements, which I know they're not medical people, and I'm interpreting, maybe with my own bias, with my own lens, I'm interpreting some of these comments as ones in which they may be seeing something that they believe is the signs of a conscious individual, which, in fact, it's probably not.

So as an example, gasping, the best example that I could think of would be – and many of us have probably experienced this – when you have an animal that you've had to put to sleep. And you give them the euthanasia drug, and sometimes the animal goes to sleep and then maybe a minute later, they have an agonal breath, they go, huhuhuhuh (phonetic.)

Q Have you spoken to any of the witnesses?

A No.

Q So the entire universe of information you're relying upon is contained within the four corners of the witness statements?

A Yes. I have not spoken to any witnesses about this, no. Absolutely not.

Q Right. And are these statements or observations [59] made by – you mentioned, they're not medical personnel?

A I'm assuming they are. I mean, based on the – the – the titles that they're – that they were provided to me of these individuals, you know, some of them are journalists, some of them are – they – they're called like staff witness I think, things like that. So it's possible some of them – maybe I've been wrong about my assumption, but it's possible that some of them have had medical background, I don't know.

(Whereupon Exhibit 4 was marked for identification by the court reporter and is attached hereto.)

THE WITNESS: So – but I – my assumption is that none of them did, maybe I'm wrong about that.

MR. FOGEL: So I'm handing the court reporter a document and asking if she can mark this as Exhibit 4.

BY MR. FOGEL:

Q Doctor, take a moment just to familiarize yourself with the document.

A Yes. Uh-huh.

Q Does this appear to be a true and accurate copy of the witness statements that you reviewed?

A Yes.

Q And were these documents that were provided to [60] you by the State Attorney General's office?

A Yes, they were.

Q And is it your understanding that these are documents that were prepared by the State Attorney General's Office?

A Yes.

Q Did you take that into consideration at all when rendering your opinion?

A Well, of course. You – obviously, you look at that and say, "Well, these were interviews performed by an investigator for the – for the Attorney General's Office, and, you know, I – I – I have to take them at face-value, I mean, is there a potential bias in how they were collected? I have no idea to know that, one way or the other.

Q Well, do you see many of the names – look at the first page, for example, you see "state witness" next to many of the names?

A Yes. Uh-huh.

Q What is your understanding of state witness?

A My guess is that, if I understand it correctly, that these were witnesses that if – the State has asked to be present for the execution, and, of course, some of these are labeled as being members of the press.

Q How – how did you form that understanding?

[61] A Well, I'd say, for example, the first page, Jessica Machetta, state witness, then it says "press" next to it.

Q So aside from reading that, do you have any other independent knowledge? Or were you otherwise provided with further information to form that understanding?

A No.

Q You see later on, there's some names that have the title "staff witness" next to that name?

A Yes. Uh-huh.

Q Do you – do you have an understanding what staff witness refers to?

A My guess is that, it is somebody who works for the Department of Corrections, but I don't know if that – could be somebody who works for the Attorney General's Office or somebody that's a member of the staff of some state agency for Missouri, is what I – my best guess would be that it's from the Department of Corrections.

Q Did you ask the Attorney General's Office to provide any information or further clarification of who these individuals were?

A I don't think so. I – I don't think I would have asked. If – if – if anything, I would have asked the question, "Do any of these people have a medical background?" And I don't think I asked that question. I [62] don't think I asked that question of anybody. Except asking myself.

Q Would that be important to forming your opinion, whether or not any of these individuals have a medical background?

A Yes. If some of them had a medical background and knew what they were looking for, then I would probably – that would be more – would lead – give it more credence, what they're observing and saying.

Q What if it was determined that most or none of them had a medical background?

A Then, again, I would say that their – some of – some of which they're observing – some of the things they observed may not be accurate, one way or the other. I mean, some of them describe the onset of the drug as being within 15 seconds or so, or whatever, and sometimes, you know, longer period of time. So, again, I – you have to look at this and say, "It's not – I – I don't want to hang my hat on just the witness statements," but I did rely upon them.

Q So if somebody said it took 15 seconds from their naked-eye observation for the drug to take effect, that might not be accurate?

A That's correct. That might not be accurate. Nor maybe, if someone said it was two minutes. Maybe it

took [63] only 30 seconds, but they thought it was two minutes, so it could go either way in my opinion.

Q Are you aware that some witnesses have opined that it took over five minutes for the drug to take effect?

A I believe that in some of – in some of these – somewhere in here, I do believe someone said it took five min- – it was a long time, I mean, I don't know whether it was five minutes or not, and you'd have to point that out to me if it was – if – but I do remember seeing something in here, that it did take that long, you know. . .

Q Did that affect your opinion at all?

A Not particularly, no. Because I – again, I asked myself the question – based on my understanding of how the – how this drug works, and in terms of its kinetics and – and its effects on the brain, is it possible that it could take five minutes for the drug to take effect?

Again, the only possibility that comes to mind – or possibilities that come to mind would be if the IV's not working properly. Or if there's a slow circulation time, which would occur in somebody who has, again, you know, really bad congestive heart failure, let's say, where their heart's not functioning properly. Those are the main reasons why I think that you would have – have [64] that effect.

But, again, you sort of look at what – well – well, when this individual said it took five minutes for the drug to take effect. What is the endpoint that they're looking for? So – so for example, you might be – again, from a non- – nonmedical perspective, you might say that the inmate appeared to be unconscious after 20 to

30 seconds, but at five – at minute five, he took a breath, that's – and then there was no breath after that, so it took five minutes to have its full effect.

Well, that's maybe a different definition than somebody else, who just basically says, "Well, they appeared to be unconscious within 20 to 30 seconds, and – and the rest of it was just these agonal breaths." So I'm not sure what endpoints each of these individuals are using.

And that's part of the – the confusion, let's say, or the lack of clarity around some of these statements. So I certainly do concede that the witness statements do not provide crystal clear guidance to us about how quickly the drug acts. But it does lend support to my contention, that it acts pretty quickly within 20 to 30 seconds.

Q What – what I don't understand is, why you're willing to discount some witness's observations, that it [65] might take several minutes, but you seem to be putting credence in witness statements who say it happened in a matter of seconds.

MR. SPILLANE: I'm going to object to the form of the question. If there's a witness in here that said it took five minutes, I haven't found them; I've found less than five minutes. I was wondering if you could point to one and ask the doctor to explain it.

MR. FOGEL: Well, that's a different question from the question that I asked. Because I said minutes and the doctor acknowledged that there are statements in here that say minutes. And I ham [sic] happy to point the doctor to a statement, but first, I would like him to answer my question:

BY MR. FOGEL:

Q Why, based on his recollection that there are statements in here that do discuss minutes, why he is willing to discount those statements, yet attach credence and significance to those that say seconds?

A Well, there are probably over 150 individual statements in here, from 19 executions. I'm not, you know, I'm not sure how many there are in total, but there – there probably – it's probably more than 150; it might be 200. And if you look at some of these statements about the minute part, you know, it says – so to get to [66] the issue about the five minutes, there is a – on page 6 of 56, Patrick Martin.

Q Uh-huh.

A (Reading):

> "Martin said it was hard to tell, but appeared to take more than five minutes, but less than ten minutes for the drug to take – to fully take effect."

So let's take a look at all these statements, here. And – and one of my faults is, I'm a very quantitative person, one of my strengths is, I'm a very quantitative person; you could take it either way, but let's look at this particular execution, here. There are probably – let's count them: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, (inaudible) – there are 29 statements here – well, there's not 29, because some of these people couldn't be reached.

Priddy, first one, "Seemed to happen quickly."

Powell –

Then the next person basically said wasn't – didn't – didn't return his answers.

Powell said, "He took two deep breaths, and that was it."

Hufford said, "It was over very quickly." [67] Jones said, "Appeared to take a deep breath, and that was it."

Taylor, "Less than two minutes."

Martin, "More than five, but less than ten."

The next person, "Less than two."

Next person, "Less than one."

A lot of these say less than one; one says less than five. So, you know, I have over 20 witness statements, a small minority said five to ten, five or so. But most of them said less than one, so I have to ask myself, "Is that one person that said it was five to ten –

BY MR. FOGEL:

Q Well, I don't think that's a fair characterization, Doctor, I mean, because we – you just read a few that said minutes, there are a few – several more you did not get to that said three to four minutes, there's one that took less than five minutes. I don't want to do number counting with you right now, but my question is, you do acknowledge that there are other witnesses who said it took minutes as opposed to seconds.

A That is true.

Q Yeah.

A There are – there are witnesses – and they have statements saying that it took three, four – five minutes [68] to take. . .

Q And my question for you is, does that affect your opinion in terms of how long it might take to render somebody unconscious?

A No, it does not. If the vast majority of the witnesses said that the inmate – you know, not just in this execution, but in other executions, you know, took five/ten minutes, you know, that they – they – and they specifically said, "The inmate was still breathing, the inmate was still moving, it took five minutes," then I'd say, "Wow. Maybe this drug is not acting as quickly as I think it is."

But the overwhelming – in my mind, the overwhelming evidence here is, that the drug – these witness statements support my contention that the drug acts very quickly, within 20 to 30 seconds. So . . .

And that's just the ones – by the way, the one execution where you can pull out those – I believe, there may be one or two others, I don't know, that you could pull out those kind of numbers, but most of these will say in these executions, it's one, less than one minute. Maybe less than two minutes.

Q Well, let me ask you a question, because you're – now you're talking about that specific execution. It could vary by execution?

[69] A Yes. I would say –

Q Why – why could it vary by execution?

A There may be issues with how fast they can inject the drug. So I don't know what those – what those specific issues are in these cases. Obviously, I wasn't present and that information has not been provided to me, if that information is even known. But for whatever reason, maybe they didn't inject the drug as quickly as they wanted to. Or maybe some of these inmates did have – I don't know their medical history, you know, how much they weigh, but, you know, some

of those issues could have an impact in the time that it takes, as we previously discussed, for the drug to act.

Q And therefore, render the individual unconscious?

A Correct.

Q It's possible that it could affect it?

A Yes.

Q You can put the witness statements aside for the moment.

Have you ever witnessed an execution in the State of Missouri?

A No.

Q Have you ever witnessed an execution period?

A No.

Q Going back to your scope of engagement, which is [70] on paragraph – excuse me, in your November 2016 report, at paragraph 3.

A Yes. Yes. Uh-huh.

Q You said, (Reading):

"I've been asked to render expert opinions in the fields of general medicine and anesthesiology. Especially regarding the use, actions, and efficacy of Pentobarbital."

And then the next sentence – that sentence continues on –

A Right, the –

Q The next sentence that I will focus on, it starts, (Reading continued):

"I have also been asked to render opinions regarding the efficacy of Pentobarbital in the case of Rusty Bucklew."

What do you mean by efficacy?

A Efficacy is used in its, you know, defined term, which is basically the – the ability of the drug to produce the intended effect essentially.

Q The intended effect, here, being . . .

A Death.

Q Death.

[71] A Yeah.

Q Do you understand plaintiff to be challenging whether or not he would die from the administration of Pentobarbital in this quantity?

A Could you ask that again.

Q Sure. Do you understand plaintiff to be asserting or to be challenging whether or not he would die from the administration of Pentobarbital in the quantity set forth in Missouri's execution protocol?

A I don't think – I mean, I – that's news me. I think he was challenging the efficacy of the drug in terms of its ability to – well, let me – let me rephrase that.

My understanding, he's sort of challenging the issue around this method would cause undue suffering, pain, et cetera. I did not think that he was challenging the fact that – that it would cause – it would not cause death.

Q Right. It's a question of whether he would die in violation of –

A Right.

Q – his 8th Amendment rights?

A Correct. I mean, I don't think he's saying, somehow, that the drug, as it would be administered, would not cause his death. I don't think – I don't think I read that anywhere.

[72] Q Do you know what cavernous hemangioma is?

A Yes.

Q What is cavernous hemangioma?

A It's a condition – usually, its congenital, but it's a condition where you have an abnormal growth of blood vessels that produce what's essentially on – if you were to look at the tissue under a microscope, there are these pools of blood or caverns of blood that are part of that hemangioma. And that's where that term cavernous comes from. So basically, the hemangioma has this blood that will enter it slowly and pool there in these caverns, and then that causes the growth of the hemangioma, as, you know, if it's congenital as the child gets older, this – this can sometimes grow larger. And so its definition – or its term is based on, primarily, its finding under microscopy.

Q And how did you form that understanding of cavernous hemangioma?

A I reviewed some of the literature. I – I had a general understanding of that term before this case, but had certainly gained more specific knowledge about the pathology, so to speak, of – of – after reviewing some of the medical literature on it.

Q And did you form that general understanding prior to this case in connection with your treatment of [73] patients? Or otherwise?

A No, not – I don't know, off the top of my head, if I've ever had a patient with a cavernous hemangioma that I've had to anesthetize, I don't know. I mean, and I don't – my – my recollection, I don't recall actually learning that about a cavernous hemangioma during medical school, but my recollection, at the time, when I saw this is, I – when I saw this, I said, "Oh, yes. Okay. I know what that is." And in a very general sense.

Q But you've never treated a patient who had cavernous hemangioma?

A I –

Q Or – sorry, go ahead.

A I don't think so. If I did, I do not recall.

Q The paragraph we were just looking at –

A Yes.

Q – the sentence continues (reading):

> "Rusty Bucklew, a condemned prisoner who has a congenital cavernous hemangioma, and whether that hemangioma would affect the efficacy of Pentobarbital or otherwise inflict the substantial risk of severe pain as a result of Missouri's lethal injection procedure."

[74] Do you see where I was reading?

A Yes. Uh-huh.

Q What – what do you mean by whether that hemangioma would affect the efficacy of Pentobarbital?

A One of the claims that your expert witness made – well, actually, not just Dr. Zivot, but I think it was – was always Dr. Wippold and Jamroz, I believe

was the other one, they made claim that the hemangioma would cause a abnormal distribution of the Pentobarbital, and thereby affect – affect its efficacy, you know, how the drug acts.

And so that's why that statement is in there, so that I can, you know, I wanted to render opinion as to what the effect of the cavernous hemangioma would have on the distribution of Pentobarbital.

Q Sure. And the sentence continues, (reading):

> "Or otherwise inflict a substantial risk of severe pain as a result of Missouri's lethal injection procedure."

A Uh-huh.

Q Do you think that there is some risk, due to Mr. Bucklew's condition, that he would suffer severe pain as a result of – let me strike that.

Do you think that there is some risk that Mr. Bucklew would suffer some pain as a result of [75] Missouri's lethal injection procedure?

A As I said earlier, inserting an intravenous line can be painful. Beyond that, if – if the IV was not functioning properly, and the IV infiltrated, then there would be some pain associated with that. When drugs infiltrate, then that could be painful. So especially with something like Pentobarbital.

Q Well, let's pause on that.

Why would it be painful?

A Well, some of the drugs that we use have a the [sic] – the PH, which is the acid level basically –

Q Uh-huh.

A – can either be high or low. And because of that, when it gets into the tissue, it can be painful. It's been described with many drugs, especially drugs we use in anesthesiology, such as Thiopental is a classic example. And I've never said otherwise, about you have to have a properly functioning IV for these – for any drug, really, that you give. Whether it's in this protocol or whether it's for a clinical reason, to work properly. So there is that risk.

Q And what could happen if you don't have a properly functioning IV?

A Well, the drug won't work as quickly as we want it to. Whether it's in a clinical setting or – I'm not [76] putting myself in that weed when it's –

Q Sure.

A – used in the lethal injection process, but from a clinical perspective, the – the drug will not work fast. In fact, it may not work at all. Because it's – it's very slow – once it gets out, in the tissue, it's going to be very, very slowly absorbed, and it won't have its intended effect.

Q And what are some of the factors that affect whether you have a properly functioning IV line?

A Primarily, it's going to be the patency and size of the vein that you put the intravenous – the catheter in. That would be the – not the – that's the main reason from a – from a – sort of a clinical perspective.

Q What does patency mean?

A Whether it's open or not.

Q Yeah.

A Yeah, so . . .

Q And – and that varies by person?

A That is correct.

Q Did you make any observations – well, you previously did examine Rusty Bucklew, didn't you?

A I did.

Q Did you make any observations regarding IV access points?

[77] A I did.

Q And what were your observations?

A So his IV access is – is what I would consider to be limited. So his left hand in particular, and arm, there are very few – there are just a few small veins that I could find. There are some more on his right arm. Sufficient that I – that I believe I, with my expertise – or somebody with the expertise of starting an intravenous line would be about to get an intravenous line in his right hand, but the veins are small.

Q And what happens when the veins are small? What does that mean?

A Well, that gets to the issue of, if you inject – you have to watch how quickly you inject a drug. And you could cause infiltration in the – the vein could – you could – we call blow the IV. Basically, where the – you rupture the vein, so now you're going to get to that drug going out into the tissue instead of into the vein, so . . .

Q And that could be particularly problematic when you have a drug with a PH level like Pentobarbital?

A Correct.

Q Okay. And what happens when a drug like Pentobarbital gets into the tissue?

A Well, it can be painful.

Q Uh-huh.

[78] A And it can destroy the tissue. You can actually get ischemic and gangrenous tissue, where the tissue dies. Almost like a chemical burn in a sense, so . . .

Q Right. When somebody has a small IV line – sorry. Does quantity of the chemical that you're injecting affect the success of the IV line?

A It's more the speed than the quantity. I mean, it's – it's – yeah, it's more the speed. I mean, if you injected you could inject a lot if you did it slowly.

Q Right.

A It's really more about the speed of the injection than the actual quantity.

Q And why does the speed matter?

A Well, because the – the vein – let's see, so imagine that you're – if you had – I'll use an example, if you had a mouthful of water and you're trying to spit it out through a straw. If you spit it out through a large straw, a large diameter straw, you're going to be able to get a lot more water out of that straw, in a certain amount of time, than if it were a small diameter straw. And a straw – I know we're thinking about a typical straw that is made of plastic and can stand high pressure, but if that straw was made of a very thin material, if you really applied a lot of pressure to that, it would blow. And that's essentially what's happening [79] when you're injecting too quickly.

Q So correct me if I don't have this right, but the smaller the IV or the smaller the vein, the slower you want to inject the chemical.

Is that fair to say?

A That would be an accurate assessment, yeah. Because you'd have to be – if you're concerned about blowing the vein, you'd have to be worried about the speed of injection, yes.

Now, I will – if I can elaborate on that.

Q Go ahead. Go ahead. If you have something further to say in response to my question.

A I mean, certainly in the clinical setting, we may have to start IVs in places that we normally wouldn't want to start IVs because of that. So we might start a central line. I mean, and that's certainly happened in my practice many times, and I'm sure Dr. Zivot – and any anesthesiologist is going to say the same thing, where you have to – you have to put in a central line when you have very poor IV access.

Q What is a central line?

A So that's a term that we use for the central circulation. So usually, it's going to be a catheter that we put into a neck vein, it could be in a subclavian vein, or it could be in the femoral vein. I mean, you – you – [80] you're able to access – those veins are very big.

Q Uh-huh.

A And you can put catheters in that. So in a clinical setting, if we were worried about injecting drugs or other substances, then we would put in a central line.

Generally speaking – yeah, that's – that's the way that we would manage that many times.

Q That's in a clinical setting. Do you know how that would be handled in the execution setting?

A I have been told that, I believe, that – that they have inserted central lines in some of the inmates – I don't know whether that's been in Missouri or not, I'm really – I'm not positive about that. So –

Q You've – you've been told it could be done?

A I – that there have been central lines that have been placed in some inmates.

Q You – you just don't know if that's – who – who told you that?

A I'm not sure if that's something that I've read in the newspapers, I'm not sure. Yeah.

And then maybe – maybe, it was something that Mr. Spillane and I discussed. I'm not – I'm not even sure – maybe it was in the – I'm not sure if the Missouri protocol has it in there, I forget. Maybe we can refer to that, I don't know.

[81] Q Would it be helpful to look at the –

A Sure.

Q – open protocol?

(Whereupon Exhibit 5 was marked for identification by the court reporter and is attached hereto.)

THE WITNESS: Oh, yeah. It does say, in C, it says, (reading):

> "Medical personnel may insert the primary IV line as a peripheral line or as a central venous line."

And then it lists femoral, jugular, subclavian.

So that refers to the femoral, which is in the groin area; and the jugular, which is in the neck area; and the subclavian, which is below the clavicle or the collarbone.

BY MR. FOGEL:

Q Right. And do you see the end of that sentence it says, "Provided, they have appropriate training, education, and experience for that procedure"?

A Yes.

Q Does inserting an IV line in – as a central venous line, require additional training or expertise?

A Yes.

Q Why is that?

[82] A Additional – well, for example, a nurse may have a lot of experience in inserting a peripheral IV, but there are very, very few nurses that probably have experience in inserting a central line. The only – there might be some nurse practitioners that have that experience – in the clinical setting, there might be – certainly CRNAs or nurse anesthetists would have that experience. But usually you have to have additional experience, and that's going to be somebody who has, you know, maybe a physician that has experience.

Q All right. So do you know if the medical personnel, that are present as part of the execution team, have that training and experience?

A I believe that there is a [sic] anesthesiologist involved in the Missouri process.

Q Right. But this condition, here, when it says, "provided, they have appropriate training, education, and experience for that procedure," are you assuming that somebody present would have that expertise?

A They would have to have that expertise in order to safely place that – those – those types of lines, yes.

Q Right. And you're assuming that somebody with that expertise would be present –

A Yes.

[83] Q – in order to do this?

A That's my assumption.

Q Okay. And what would be all the alternatives if you could not insert it through a central venous line?

A If you did not have adequate – what you considered an adequate peripheral IV, and you did not have central access –

Q And sorry, what is a peripheral IV?

A So that would be like a [sic] IV –

Q Through the hand?

A – in the hand, or in the arm. This is considered basically the periphery (indicating), it could be in the foot.

Q Uh-huh.

A We often have placed IVs in the feet in a clinical setting. But a central line, so it's usually considered to be peripheral – peripheral versus central. Central line would be something where the catheter's actually in what we call the central circulation. Usually we're talking about a large vein such as a jugular or the subclavian or the femoral, and pretty much everything else is – is – is peripheral.

Q Sorry, I – I think you were answering a question before I interrupted you.

A I – I – I think I –

[84] Q Do you want me to repeat the question?

A Sure.

(Whereupon the record was read.)

THE WITNESS: You wouldn't be able to administer the drug. I mean, you do not have – you do not have a properly functioning peripheral line, you do not have a properly functioning central line, you cannot inject the drug because there's no vein to inject it in.

I mean, I've never said otherwise. You have to have a properly functioning IV somewhere to be able to safely administer any intravenous drug. Just to make that clear.

BY MR. FOGEL:

Q Now, in your report, your supplemental report, Doctor, you state there had were [sic] small superficial veins in his hands?

A Yes.

Q And that – and that is referring to what you said earlier, that he has small veins –

A Yes.

Q – in his hands, which would make it difficult to administer an IV through the hands; is that correct?

A I don't think difficult would be the right word. I mean, it made it more challenging.

Q More challenging. Sure.

[85] A Yeah.

Q And –

A And by way of an example – I know you can't put this in the report, but look at my veins (indicating.) Right? People look at that and they just salivate of over [sic] those veins; they're huge.

Q But Rusty does not have those types of veins?

A No, he does not.

Q He's not as lucky as you to have those veins?

A Right.

Q So –

A Just – just as an aside, and I'm sorry I got to throw this in there: Anesthesiologists, when we're out in the world, we look at veins and we look at the airway of everybody. So I guess it's just what we do, so . . .

Q You – you also stated in your report that there are limited sites for IV access in upper extremities –

A Yes.

Q – is that right?

And when you say "upper extremities," what are you referring to?

A The arms. I didn't examine his feet.

Q Okay. When we talk about peripheral IV access –

A Uh-huh.

Q – are you generally talking – is that what [86] you're referring to when you say the upper extremities in the hands, that's –

A Yes, that's the –

Q – the peripheral IV access.

A – that's the peripheral IV access that I'm talking about, yes.

Q So you did not examine whether – where the potential of a central venous line –

A No, I did not.

(Whereupon the reporter requested clarification.)

BY MR. FOGEL:

Q Is that – is that accurate?

A I did not. I did not examine him.

Q What – what type of – in the clinical setting, what equipment, if any, would you use to identify the central venous line?

A Well, if you are using a – if you're going to insert a catheter in the jugular vein, the standard of care now is to use an ultrasound machine, where you identify the – the jugular vein. If you are inserting a femoral line, you don't need any – I mean, people can use an ultrasound machine, but it's not necessary. It's not – you wouldn't have to use that.

And likewise, with a subclavian vein, you wouldn't have to use an ultrasound machine. I think [87] people do do that, but it's not absolutely necessary. But I think for the purposes of the jugular vein, you'd want to use a ultrasound machine, but for the others, I wouldn't say it's absolutely necessary.

Q Do you know if an ultrasound machine – are there any other pieces of equipment that you would use in order to identify an [sic] central venous line?

A No. I mean, ultrasound would be the – the one that I would use.

Q Do you know if an ultrasound machine is available in the execution setting?

A I do not know.

Q For somebody with veins as poor as Rusty's as you've described them, is there anything to increase

the likelihood of the vein to blow once the fluid begins flowing through it? Through the needle.

A Yes. There is – with poor IV access or limited IV access, small veins, then the risk of an infiltration is higher. I can't give you any numbers, I'm not even sure those people have ever studied that, quite frankly. But just based on my clinical experience and I think, based on general teaching and clinical experience of others, yes, there's an increased risk of a vein blowing when provided with limited IV access. Which he did have.

Q Right.

[88] MR. FOGEL: Why don't we take a – a break.

(Whereupon there was a break in the proceedings.)

MR. FOGEL: We're ready to resume?

BY MR. FOGEL:

Q Doctor, I want to pick up on something we were discussing shortly before we took a break. And that was the – accessing the central venous line.

Now, do any of the veins that you discussed have arteries – well, first of all, what is the difference between a vein and an artery?

A An artery is the term that we use that describes blood that takes a tube, essentially, that takes blood away from the heart. And usually, that's to the systemic circulation. So for example, the left ventricle will have the aorta coming out of it and that will have branches, and those are arteries. Like the carotid artery and so forth.

And then veins we describe as structures that bring blood to the heart. And that's sort of the – that's the basic structure. And usually, for the most part,

arteries have oxygenated blood in it, and veins have deo- – what we call deoxygenated blood it in.

But there are the two main exceptions to that is, that when the blood comes back from the lungs back into the heart, those are called pulmonary veins because they [89] are veins that are bringing blood back into the heart but actually it's oxygenated blood. And likewise, the pulmonary artery takes blood from the heart to the lungs, it's called an artery, but it's got deoxygenated blood.

But in terms of the systemic circulation, which is the typical term we use to describe blood flow through the – through the body. Arteries carry blood from the heart to the various organs and then veins bring that blood back from the periphery or from those organs back into the heart.

Q Can you use an artery instead of a vein –

A For?

Q – for purposes of an IV line?

A You cannot.

Q Why – why not?

A Well, let me just clarify that.

You can use an artery – in fact, that – people do use arteries for an- – what's called angiography, where they are – they are looking at the structure of an artery, and – and the – the blood flow through that artery, so they will inject a contrast through that artery. But for the purposes of giving a drug for, you know, having a systemic effect, you would not use an artery. In fact, you would want to avoid using an artery.

Q Okay.

[90] A Because these drugs can damage arteries. You know, many drugs can damage arteries.

Q Do any of these veins that you would use, as you described as a central line, do any of them have neighboring arteries?

A Yes, they do. And I guess, for purposes of – of making a complete statement about the artery, there is one exception to the – the – what I said about arteries. The pulmonary artery, sometimes will have a catheter, it's called, interestingly enough, a pulmonary artery catheter. And it goes through the heart, into the pulmonary artery. And you can't inject drugs into that, because that's – in that sense, it's like a vein.

Q Yeah.

A But it's – anyway, back to your question:

Do these structures, where the – the central line being placed in a femoral artery, you know, the –

Q And the jugular?

A – jugular and stuff like that.

Q Yes.

A Yes. There are arteries very close to the veins.

Q So the important – based on what you described and why you would use the vein as opposed to an artery – to be very careful that you don't insert the IV into the artery, and not into the vein?

[91] A Correct.

Q So what do doctors use in a clinical setting to make sure they don't put it into the artery instead of the vein?

A Well, we already brought up the issue or the technology of an ultrasound machine.

Q Right.

A And that's one way of more accurately diagnosing where your catheter is. The other things that you do, I mean, there are a variety of different techniques. So for example, I mean, I'm going to go into some detail because I think maybe that's what you want, but . . .

Q Well, do you need an ultrasound in order to –

A No.

Q – access –

A You don't need an ultrasound to –

Q – the central venous line to make sure you do not –

A You do not –

Q – put the IV into the artery?

A You do not need an ultrasound to – we used to do that all the time, for many years.

Q What is preferred practice today?

A For the placement of the central line in the jugular vein, it's going to be the ultrasound. I'm not so [92] sure that it's preferred practice or a standard of care for the other veins. It may be in some settings and some institutions, where they say you should do that, but . . .

Q If you were to insert an IV into the central line, would your practice be to use an ultrasound?

A I think you want to rephrase that question. You said to put my IV in a central line, you mean in a –

Q Central vein.

A – central vein.

I would use it for a jugular – I'm not sure that I would need to use it for the femoral vein or the subclavian. The subclavian vein is a little bit more difficult for the ultrasound to be useful, I think, but I think people can use it.

But it's really primarily for the jugular vein because the concern there, is that, when you puncture the artery, the carotid artery, that's the blood flow to the brain, there's risk of stroke and things like that. There's obviously risks involved in terms of puncturing the other arteries, but not nearly cat- – potentially catastrophic as with the somehow puncturing or having a problem with the carotid artery.

Q Are you familiar with a cutdown procedure?

A Yes.

Q What is it?

[93] A So a cutdown procedure is where you actually have to make an incision into the skin to gain access to a – the structure that you're trying you – and usually, it's going to be a vein that you're trying to cannulate. So we use the term percutaneous – you got that?

THE REPORTER: (Inaudible response.)

THE WITNESS: Okay.

Percutaneous means through the skin, basically. And that's essentially where you use a needle to gain access, like a intravenous line. A cutdown is where you would actually use a scalpel to make an incision in the skin and then you do a dissection to actually – to find the vein.

BY MR. FOGEL:

Q What – when would a doctor use – or some medical professional, use the cutdown procedure?

A If they had difficulty gaining access to the venous system, but the usual methods of, you know, they can't access it peripherally, they can't get a central venous line placed. Most cutdowns are usually done on – I shouldn't say most – most cutdowns, in my experience, in the – in the clinical practice that I was in, most cutdowns were done on the saphenous vein, which is a vein in the ankle. It's usually patients in the – who's been in trauma. So they come into the emergency room and they [94] get a cutdown on the saphenous vein, and they – or they find the saphenous vein and they insert a large bore of tubing or a catheter into that vein.

Q When – have you ever used the cutdown procedure on somebody before?

A I have.

Q What position was the individual lying in when you applied the cutdown procedure?

A Supine.

Q Which means?

A Flat.

Q Lying flat?

A Lying flat, yes.

Q And why were they lying flat?

A Because they are – were trauma patients, and they have injuries, and they were – they had – they'd be lying flat – all – all trauma patients – I shouldn't say all, like I said earlier, never say never, never say

always, but vast majority of the trauma patients are going to be lying flat, so that's why. And that's the best position to be able to get access to the ankle and to do the – to do the other things that need to be done in a trauma patient.

Q Would you agree that for somebody where it is difficult to locate a [sic] IV site through the skin, that it's [95] more likely that they need to have a cutdown procedure?

A Yes. More likely, I mean, that wouldn't be the next step, the next step would be the central line. But failing that, and a cutdown would be needed, I mean, for the most part. I mean, those are sort of the ways in which you could access the venous circulation.

Q Do you have any understanding of whether the cutdown procedure was used under Missouri's execution protocol?

A Say that again.

Q Sorry. Do you have any understanding of whether the cutdown procedure is an option under the Missouri execution protocol?

A I – I don't know if it's in there or not. I don't remember seeing that.

Q Do you know if it's used at all?

A In –

Q The Missouri – in Missouri executions?

A I don't know.

Q Or is it an option?

A I don't know.

Q You mentioned the – was it the saphenous vein?

A Yes.

Q Do I have that right?

A Yes.

[96] Q And it run – starts in the ankle.

Does it run all the way up, into the groin?

A Yes. It's – well, it's not called the saphenous vein, once it gets up to that level. But yes, that's the way the pathway goes up, into the femoral vein.

Q So it's different from the femoral vein?

A Yes. So you could think of the femoral – so there's several veins – there are a lot of veins, let's say – let's take the leg, there are a lot of veins in the – in your leg. Some of them have names, because they're commonly – you know, they have a common location. The others don't. So they all sort of come together – not all of them – but many will come together – not all of them, but many of them will come together [sic] to form the femoral vein? So . . .

Q And where do you access the femoral vein?

A In the groin.

Q In the groin.

And you mentioned that as an option if you were to do a central venous line; correct?

A Yes.

Q If you were to access the femoral vein, would you need to cover it with a sheet, if you were trying to shield someone – if there was somebody observing –

A Yes.

[97] Q – the person who was having the IV inserted, would you recommend them covering it with a sheet because the groin would be otherwise exposed?

A Kind of depends on the clinical setting. So for example – so normally, what we could do the – for the femoral vein, you would use a – a central line kit, basically, and most of these – you know, some of these kits could be used for almost any central line location, whether it's a saph- – I mean, a subclavian or a jugular or a femoral.

And you prep the area, you disinfect it, basically, and then you take a – a large sheet that's sterile, and it has a hole in it, and that's where you put – that's where you're going to be doing your work. So it's – you do cover a large part of the, you know, the lower-torso part, there, including the genitalia. But the actual area where you're working is going to have a hole in that sheet, that you're going to – that's where you're going to be doing your work.

Q Uh-huh.

A I don't know if that's what you were –

Q Well, I suppose it's – it might be a little bit of an unfair question, because you don't know if the cutdown procedure is allowed or used under Missouri execution protocol; is that right?

[98] A I don't know that.

Q And you don't know – and therefore, you wouldn't know how it is employed?

A Yeah. Well, you're talking about central line placement. I thought. A femoral line.

Q Well, I was talking about femoral line, but also the cutdown procedure.

Would you use the cutdown procedure on the femoral line?

A I don't know whether people do that. I've never done that. I've never done a cutdown on a femoral vein because in my experience, the femoral vein is – is easily accessed. Well, I shouldn't – you know, it's – it's easily accessed.

I mean everybody, for the most part, I mean, I should, again, never say never and never say always, but almost everybody has a femoral vein. And the anatomic location is very consistent from one person to the next.

Q Uh-huh.

A So you wouldn't need to do a cutdown in somebody for a femoral vein in the groin. I mean, I don't – I suppose it has happened somewhere, but I've never seen it and I've never done it.

Q Right.

A For the purposes of gaining access.

[99] Q Have you ever had a conversation with any of the execution medical team on –

A Never.

Q – the access of the femoral vein?

A Nope. I've never spoken to anybody for, you know, execution team, not at all. No contact whatsoever.

Q I think you used the word "challenging" when talking about accessing Rusty's IV line. What – what are the consequences, for somebody like Rusty, if the medical team is having challenges accessing an IV line?

A So I will answer that in sort of the setting of what has happened in my clinical experience.

Q Uh-huh.

A You may end up having several attempts, more than several attempts. I've probably seen patients that have had more than, probably, ten attempts to try to get IV access. And sometimes, depending on how the patient's tolerating, you might end up saying, "You know what, we're going to go over to try a central line, you know, we're not going to do – do this anymore."

So that's – that's where, if there was a challenge, you know, I say challenge, if there was a problem, then, after so many attempts – and I don't know what that number would be, it's going to vary from individual to individual. But they would –

[100] Q But for somebody with Rusty's veins, as you've described them, you've acknowledged it could be challenging to access the IV lines. Is that something that you would – is it likely to induce stress on somebody like Rusty?

A It would induce stress on almost anybody. Because you're sticking them with sharp needles, yeah.

Q Would it increase the likelihood of heavy breathing?

A It – yes, it could increase the likelihood of that, because, you know, it's stressful, you're going to be breathing more rapidly potentially.

Q Could it increase the likelihood that Rusty's hemangiomas would start bleeding?

A I'm not so sure about that. I don't know, I'm not sure that I – I know that the – Dr. Zivot and others,

and, you know, the other experts have said – talked about changes in the blood pressure, I'm not sure that the, you know, increase in blood pressure would cause – make it more likely to rupture, I'm not so sure that that's well documented based on the pathology, essentially, of – of these types of hemangiomas. I – I don't think I buy that, that an increase in blood pressure is more likely to do that.

Q To cause the hemangioma to start bleeding?

[101] A Correct. I don't think it's going to be more likely, yeah.

Q What causes Rusty's hemangiomas to bleed in your opinion?

A Well, the histology in the – my, you know, or the basic structure of these hemangiomas is that No. 1, for him, they're superficial. Part of it's superficial, I mean, obviously some of it's gone up, on the inside of his neck, but in – in – into his – into his head. But part of it is actually, you can see it in – in his mouth. And you can see that – and you can always see, of course, some of it on his nose and on his face. And that tissue, if you were to – in terms of Zivot – Dr. Zivot uses his friable.

(Whereupon the reporter requested clarification.)

THE WITNESS: Friable.

I don't know if that's the best term to use, but I do agree that that hemangioma, and that, if you were to traumatize it in some way, that it would be more likely to bleed compared to, if I provided the same type of, quote, "trauma" to you.

And when I use the term, I'm – for example, I'm thinking about if I had to intubate him, put a tube into him, you know, let's say the – the inmate needed to have surgery, then there's – you would normally put a

tube [102] into the windpipe to breathe for them. And use a – what I call when I talk to patients, a metal tongue blade basically, it's called a laryngoscope, and when you insert that into the mouth, even a normal individual, could you, you, or you, or any of us, when we do that, sometimes you get bleeding. Rusty or Mr. Bucklew's going to have increased risk for that because of his tissue. If you were – if you were to manipulate his airway in that way.

BY MR. FOGEL:

Q Through the insertion of the tube?

A Correct.

Q Right. So what – under what other conditions would cause – because Mr. – as you know, and I think you observed Mr. Bucklew has some periodic experience of bleeding from his hemangiomas.

A Yes.

Q Obviously, without the insertion of a tube. To your understanding, what causes those hemangiomas to bleed in those circumstances?

A Well, there're probably parts of that hemangioma that are – again, we have used the term "friable," that are very, very, very thin, and just the normal, you know, maybe when he's eating something and just the act of swallowing can irritate or scrape, basically, the back of – the back of his throat or the pallet, and cause the [103] bleeding. He reported to me that he gets – when he wakes up in the morning, he sometimes has blood on his – on his sheets. So maybe there's some type of spontaneous bleeding, I don't know. Maybe – I don't know what – why that is happening, but he does report that.

Q Any other understanding of why or how his hemangiomas would start bleeding?

A If his airway – if he is – so for example, if he's snoring, on, you know, there's no doubt, of course, that, you know, the hemangioma involves his airway, he's more – he's going to be more prone to snoring, having some sort of the tongue fall back into the back of his throat. Maybe somehow that vibration causes him to have some bleeding potentially. That could be another cause of it.

Q So we're – we're – you're talking about some of your observations from your examination of Rusty; is that right?

A Some of these, yes.

Q And – and you did, in fact, Rust- – examine Rusty –

A Yes, I did.

Q – in person. And you documented that in your supplemental report; is that right?

A Correct

[104] Q So let's take a look at that.

And I'm specifically looking at paragraph 3 of your supplemental report.

A Uh-huh.

Q And it continues on – it starts on page 2 and continues on to page 3, ending with No. 4, limited sites for IV access in upper extremities?

A Yes.

Q Do you see that?

A Yes.

Q And so does that – is that the entirety of your observations from your examination of Mr. Bucklew?

A I think so. I mean, I – doctors never write everything down that they observe. I mean, I'll be honest with you.

Q I – that's fine. I just want to make sure I'm looking at –

A Right.

Q – at everything that's relevant.

A Yeah. I'll – but that's – I put as much down there as I thought. I mean, you know, if – there may be some other things that I saw that I didn't put down there, but that's the vast majority of what I observed.

Q Great. Just want to make sure that we're looking at –

[105] A Yeah. Okay.

Q – all the information.

Why – why did you examine Mr. Bucklew?

A Well, two – I guess, two basic reasons: One was credibility; right? I mean, if – if – how can I make a medical or make an assessment of this guy if I haven't examined him, and Dr. Zivot pointed that out.

And then No. 2, I do want to have a sort of independent – be – be – being able to make an independent judgment of what he looks like and what the airway – what his hemangioma looks like.

So I felt that was likewise important, so . . . that was the – that was the main reason why I wanted to do that.

Q So like Dr. Zivot, you found that Rusty has a hemangioma on the right side of his face; is that right?

A Correct.

Q And – and he has multiple hemangiomas, but you specifically focused on the one on the right side of his face; is that right?

A Well, I think that the hemangiomas, I don't know that they're anatomically completely separate, I don't know that for sure. I'm sort of thinking to call it – call it an all – so there's an – obviously a hemangioma that the – hemangioma's involving his – the outside of [106] his – the exterior, external part of his right face, but of course, it's also internal.

Q Uh-huh.

A And so this hemangioma seems to be all in- – interconnected, so you can call it one hemangioma or several. But . . .

Q Understood.

But you also agree with Dr. Zivot, that this hemangioma or hemangiomas, plural, affect Rusty's airway?

A Yes.

Q And how does it affect his airway?

A So he had a – or he has a hemangioma – the hemangioma involves his pallet –

Q Uh-huh.

A – his uvula, his – basically, his cheek, both in the mucosal side or the internal – oral side, and the external. And it extends – seems to extend down, into his tonsil region a little bit.

Q And the pallet, is that – what does that mean? The roof of the mouth?

A Yeah, the roof of the mouth.

Q Right.

A So we talked about the hard pallet and the soft pallet. So the hard pallet is where it's hard and the soft pallet is further back where the uvula is, you know, [107] that thing that hangs there, and is attached to the soft pallet.

Q So how – I mean, now that you've described kind of the presence of the hemangioma, how does that affect his airway?

A Well, it causes him to have some of the symptoms that he describes, he, being Rusty Bucklew, some of the symptoms that he describes of, you know, sometimes he feels like he can't, you know, he's choking a little bit, or he has the bleeding problem, he has to – he says that sometimes he has to sleep on his side or be in a particular position. And then, those are the primary things that he described to me. And –

Q Go ahead.

A No. No.

Q Do you have any more?

A No. No.

Q Do you know what a Mallampati is?

A Yes.

Q What is a Mallampati?

A It's a scoring system that's used in our specialty to describe a [sic] airway for the purposes of how easy it will be to intubate somebody, to manage their

airway. And Mallampati is actually the name of the person who described it. It's usually, going to be a score of [108] one to four. One, being an airway that's primarily going to be high- – higher likelihood that it's going to be an easy airway, and a four, being a higher likelihood that it's going to be a difficult airway. But it's not absolute. For example, you can have somebody –

THE REPORTER: Can you slow down a bit.

THE WITNESS: – with a Mallampati score of 1, who has a difficult airway. And then you can somebody [sic] who has a 4, that has an easier airway. But in general, it's going to be easier for a 1 and a – a more difficult airway for a 4.

BY MR. FOGEL:

Q Does Rusty have a Mallampati 4?

A Yes.

Q And so that means that Rusty has the most difficult airway to manage?

A Higher risk for that.

Q Higher risk.

A Yeah. Higher risk is probably the way that I would say that.

Q Have you ever anesthestized somebody with a Mallampati 4 airway?

A I have.

Q How many times?

A A lot. I, you know, it's not uncommon in the [109] population, especially, with people that are obese.

Obesity increases your risk for – because you get a lot of redunentation in the back of the – you know, the

mouth and you get, you know, a thick neck and that kind of thing, so . . .

Q When you, quote, "manage the airway," what are you doing as a doctor?

A So, in – in our specialty, you – you have to obviously breathe for the patient. You give these drugs that stop breathing, and you have to breathe for the patient. And most of the time, you're going to do that using some type of air – airway device. So might – might be a mask, you know, we put a mask on you, and when – when you're anesthetized, we can hold that mask on your face and we have a [sic] infuser machine with a circuit and with a bag, and we can actually manually inflate your lungs through that mechanism.

Q So the purpose of that is – I'm sorry.

A If I could continue . . .

Q Yeah, go ahead.

A So sometimes, we put in another airway device, several airway – there's an oral airway device that we use to help lift the tongue up, off the back of the throat and back of the mouth. We use something called an L-M-A to put in the back of the throat and then we use an [110] endotracheal tube to go back into the back of the mouth and back, into the windpipe.

So we use all these different tools to be able to breathe for the patient, and that's called managing the airway, basically, and we use those types of techniques to make sure that we can breathe – breathe for the patient.

Q Because they, otherwise, would not be breathing or would have difficulty breathing?

A Correct.

Q And somebody who has a Mallampati 4, is at the highest risk of having difficulty breathing?

A During that induction process of anesthetic, where you're starting to take over their breathing, yes. In a clinical setting, where the patient's going to be, hopefully, alive at the end of the procedure.

Q Do you consider Rusty's airway irrelevant in the context of your opinions in this matter?

A Yes, I do. I think that it's not – I mean, I – irrelevant, I mean, I do – I do understand the concept that is being proposed here around bleeding in the airway. I don't think that's important in a sense that – could – could he, the inmate, bleed before, you know, during the process when he is getting the IV placed and all that? Well, he's already bleeding now. We know that. So could he bleed at that point? Yes. Is it going to be more than [111] what he bleeds now? I – I have no idea.

But, actually bleeding during – after the injection of the drug, and, you know, these choking, you know, again, choking sensations, he'll be unconscious, so his airway's irrelevant in that sense. Because we're not interested in – I'm sorry – the State of Missouri is not interested in – if I may use that term, I'm sort of putting maybe words in their mouth – but they're not interested in – in this airway issue because the intended outcome is death; it's not to keep someone alive. So airway management is really not that important at all. That's sort of my perspective on that.

Q So you – airway management is, I understand you would say that State of Missouri doesn't think it's relevant because he's going to die, but is airway management not relevant only after he's rendered unconsciousness? Is that your opinion?

A Repeat the question.

(Whereupon the record was read.)

THE WITNESS: I'm hesitating here, I'm thinking why – why would it be relevant before he is unconscious? I – I – I have thought about scenarios. Would – would there be something that would stop – stop the execution? Well, I suppose. I mean, not to – not to put too silly of a point out there, but I'm reminded of what happened [112] last night at the Oscars, where the wrong envelope was presented to Warren Beatty? You know, what if the governor said, "Go ahead and – and in this execution. And oops, I made a mistake and I meant stop," and they've already started, I mean, I'm not – I suppose you could think of scenarios like that, where you – or the, you know, Missouri has to, now, resuscitate an inmate, you know, of course, in that – in that particular case, Rusty Bucklew, with his airway and all that, is going to be more of an issue.

But beyond that, I'm grasping at, you know, reasons why the airway would be an issue beforehand. I mean, it just – I – I – my opinion about what – what the case is being made, here, about Dr. Zivot is, that he – and – and others, perhaps, are applying clinical or they're taking a clinical perspective on this execution when I don't think that applies.

BY MR. FOGEL:

Q Aren't you drawing upon your clinical knowledge and expertise in order to render an opinion here?

A Well, I'm not – I – I – I'm not – maybe I didn't make that clear.

He is – he is basically saying – if I understand what he's written, he's basically saying, you know, this inmate has a – an abnormal airway, and [113]

therefore, he's at higher risk for problems during this execution. Well, I agree with him, that Bucklew has an abnormal airway, but it doesn't affect the intended outcome. It doesn't impact the intended outcome.

If I were anesthetizing Bucklew for a clinical procedure, absolutely, I'd be concerned at his airway, both, before and after he was unconscious. But not for the lethal injection, so . . .

Q Let me make sure I'm following here: Because it doesn't affect the intended outcome, meaning, that he dies?

A Correct.

Q Correct. Do you not understand – do you understand that Dr. Zivot was not addressing whether or not he would die, but whether he would die in violation of the 8th Amendment, meaning intolerably suffering during – during a procedure?

A Well, that's, I think, what he was – he was certainly trying to get at in some of his – in his reports. But I think my interpretation of he was saying in some of his reports, might – again, my interpretation is that he's misapplying – he's sort of conflating, you know, the clinical picture of someone who's going to be, you know, the intention is that they be alive at the end of the procedure with what occurs in an execution. So . . .

[114] Q Sure. But maybe we just need go back to the questions that we were talking about earlier, at the beginning of the deposition.

Do you think Rusty would suffer any pain and suffering as a result of his blocked airway during the course of the execution?

A The answer to that is, I don't think he will suffer or have any pain. Aside from, again, starting the IV,

and, you know, could he have a massive bleeding prior to that? I suppose that's possible.

Q So you don't know if Rusty might – his hemangiomas might start bleeding during the procedure?

A They probably – my guess is that they – you know, I don't know, we don't know. You won't know that until, you know, if – if this – this if the execution occurs, but . . .

Q Could Rusty choke on his blood?

A Well, he would – so he could have bleeding after he's unconscious or before he's unconscious, and he could aspirate that blood. You know, I mean, that's entirely possible because that, you know, his – his hemangioma, we don't know what the – the course of that will be exactly. But, you know, that is a possibility, but that – but it may never happen either. I mean, it's possible that it would never happen. While he was awake, he would have a [115] massive bleeding that would cause him to choke on his blood, so . . .

Q Do you think Rusty's at an increased risk of bleeding from his hemangiomas as a result of execution procedure?

A I'm trying to think of a scenario whereby the – he – he would be at increased risk.

So could an increase in blood pressure cause that? In my opinion, unless it was a massive increase in his blood pressure, I don't think that it would, you know, affect it. I mean, his blood pressure was 144 over 100 when I examined him and I think it was very similar to, if not identical, to when Dr. Zivot examined him. You know, I – is it a [sic] increased risk, I – I think that was your question, yes, it is increased, but I think a small relative increase in his risk during the

execution protocol. Because, you know, he's going to be stressed, like anybody would be, if you're, you know, you have impending death. But I think that risk is – is pretty small.

Q Do you think it's relevant whether Rusty suffers any pain and suffering, notwithstanding the fact that he was going to die at the conclusion – that he would die at the conclusion of the execution process?

A Do I think it's –

[116] Could you repeat that question, please.

(Whereupon the record was read.)

MR. SPILLANE: I'm going to object to the form of the question. Because the doctor probably needs to know relevant to what.

BY MR. FOGEL:

Q Well, it's a very – I mean, we can start with that baseline question: Do you think it's relevant whether he suffers any pain and suffering?

A I think it is, from a – and I'm going to get off into a legal/constitutional area that maybe I don't have the expertise to, but I – any method of execution, for the most part, is going to involve some type of pain and suffering. So, you know, is it – is it relevant? I think it's only relevant if – if you think that it's going to – it's going to be more than what would be legally permissible, I guess.

So I don't want to say it's not relevant at all. But in – you know, in this particular case – and that's, of course, why we're here – I don't see the – the type of suffering, as you say, that we're talking about here, I don't see that as being any more or any less than what, you know, the suffering that he already has. I mean,

he already has symptoms; right? He already talks about, he – he – he has these gasping, choking, bleeding [117] episodes. So – and none of us can do anything about that. I don't see that that's going to be – marked the increase as a result of this execution process. So I'm not sure that answers your question, but – so I don't want to say it's irr- – you know, the suffering is irrelevant, but it's just – you know, I – I –

Q Well, you – you used the term "legally permissible," do you have an understanding, an independent understanding of what is a legally permissible amount of pain and suffering?

A I mean, I have sort of a – I guess, a layperson's understanding of it.

Q Right. And did you apply that in the context of your opinion here? Did you render an opinion on what would be a legally permissible amount of pain and suffering?

A No, I don't think so. I don't think I did that, I mean, I just looked at the amount of pain and suffering that I think that somebody would have in general with – with – with this protocol. Which, again, I mentioned, you know, you're starting an intravenous line, so that is painful or can be painful.

Within the setting of this particular individual, I just don't think that there is a – would be a marked increase in his pain and suffering, you know, preceding [118] the injection of the drug. But does that – I – I don't know what the – again, I have sort of a vague understanding of what would be sort of permissible, but I don't know – I mean, it is a – I guess a judgment call, in regards to, you know, what's permissible and what's not. But I didn't apply that in this particular case. I just sort of looked at the, you know, facts of the

case, you know, my medical and scientific background, determine how the drug's going to work, and would the drug work in – in the – its intended way.

Q So let's focus more specifically on the actual opinion that you rendered.

A Okay.

Q And if you go to paragraph 26 of your November 2016 report, so this will be Exhibit 1.

A Uh-huh. Okay.

Q And the paragraph starts, (reading):

> "It is my opinion, to a reasonable degree of medical and scientific certainty"

And then you list –

A Yes.

Q – five different –

And first, as a threshold matter, are all the opinions that you're rendering captured here, in [119] paragraph 26?

A I wouldn't say all of them. I'm sure I have other opinions in this – in my other report.

Q In your supplemental report?

A Yeah. But I probably – I probably have opinions that are in here that I didn't put in my conclusion, I think these are the main ones that I put in there.

Q Okay. And No. 3 is, (reading continued):

> "Injection of massive doses of barbiturates in this inmate would not inflict mild, moderate, or severe pain."

Did I read that right?

A Yes, I read that.

Q And let me ask you, what are the basis [sic] of this conclusion?

A For No. 3?

Q Uh-huh.

A Well, the injection process of actually injecting the drug, if done the way it should be done, which is with a well-functioning IV, that is not a painful process, to actually inject the drug into a well-functioning IV.

Q So you're assuming that there's a well-functioning IV?

A That's correct.

Q Does the fact that Rusty has a challenging or it [120] could be challenging to access Rusty's IVs, render it more or less likely that the IV would be well-functioning?

MR. SPILLANE: I'm going to object to the form of the question. I think he said it would be challenging to access his IVs, I think he means challenging to access his veins.

MR. FOGEL: Thank you for correcting me.

BY MR. FOGEL:

Q With that clarification, please go ahead.

A Repeat the question now that we've – or maybe you just want to repeat it then.

Q Sure. Because based on your prior – on your observations of Rusty, you concluded that it would be challenging to access his veins, does it make it more or

less likely that you would have a well-functioning IV line?

A It would be less likely that you would have success of get having a well-functioning IV line.

Q Does that at all affect your opinion at No. 3?

A No.

Q Why not?

A Because my understanding of the protocol is, that the drugs would not be injected unless there was a well-functioning IV, either a peripheral or a central line. So maybe some clarification would – was – should [121] have been added to that, but my assumption there, based on what I read in the protocol, is that you have a well-functioning IV. And having a well-functioning IV, either a peripheral one or a central one, the actual injection of the – of the drug would not inflict mild, moderate, or severe pain has [sic] I had written there.

Q Right. You're assuming, though, that there is a well-functioning IV line?

A I am assuming that, yup.

Q Now, at No. 5, you also say, (reading):

> "Any pain and suffering that he risks during an execution using Pentobarbital is not a greater quality or magnitude than a risk of pain and suffering that he currently experiences and the risk would end up a rapid unconsciousness from the injection of Pentobarbital."

A Yes.

Q What were the bases for that opinion?

A Well, he is suffering or, you know, he's having these symptoms as it is. He's having episodes of bleeding, he – he has episodes where he can't – he – he has – I can't remember the exact term that he uses, but airway closure and he gasps, things like that. Choking [122] sensations. And that, you know, those are going to – those will continue, you know, up to his death, probably. Whether it's by natural causes or by execution, I mean, this is a – that's nature of the hemangioma, I mean, his symptoms are not going to get any better. So he carries that risk all the way up to his death, whether it's natural or by execution.

And basically, the only way that he will – that suffering and pain and, you know, symptoms that he has will stop, will be when he, you know, during times when he's asleep; right? He's not going to experience those because, by – by definition he's asleep. Or when he's – achieves or when he's given the Pentobarbital or, you know, if he was – had to have surgery for something else and he was given, you know, those – those episodes, where he'd be unconscious, where he wouldn't have those symptoms. That's essentially what I'm writing there – or what I've written there.

Q Okay. Any other basis you relied upon in order to form that opinion?

A Not that I can recall.

Q And here, at paragraph 26, you also mentioned that you rendered some other opinions that would be set forth in your supplemental report?

A Uh-huh.

[123] Q Is that right?

Can you direct me to where I can find those opinions in your supplemental report?

A Well, opinions about what? Just all – any of my opinions?

Q What – what are the opinions? You said you had rendered some additional opinions in your supplemental report.

A Well, I think all of the paragraph that I've wrote in any supplemental report are opinions. I guess, I'm not sure what, specifically, you're –

Q Are there any conclusions –

A Oh.

Q – similar to how you phrased it –

A Oh, I see.

Q – in your opening report?

A Well, as we've discussed, I gave my opinion and assessment of his – my physical examination, my – my history and physical examination, which are shown on pages 2 and 3.

Q Uh-huh.

A My opinion assessment of his airway – or my assessment of his airway doesn't alter my opinion regarding the actions of the – of the Pentobarbital, which is that you've got rapid unconsciousness and [124] respiratory rest.

I gave an opinion about my – what I wrote regarding the Pentobarbital action in the prior supplement, and then I clarified – or in the prior opinion, and I clarified that in terms of action, adding the timeframe, along with the physiological responses to the Pentobarbital. And then even if there was bleeding in his airway after the Pentobarbital, that the – the inmate would be

unconscious and deeply unconscious, and unable to sense that bleeding.

And then I go on to talk about the –

Q So you're essentially just flipping through your report right now?

A I am.

THE REPORTER: Hang on. One at a time.

BY MR. FOGEL:

Q So you're flipping through your report?

A Yes.

Q All I was asking was, for you to identify if there's another section in your supplemental report –

A I see.

Q – that sets forth your conclusions similar to what you have done in your opening report.

A All right. I – I – I'm sorry, I just don't know how to answer your question. I mean, I'd have to go [125] word through word –

Q No. No, that's fine.

A Yeah.

Q You said you had rendered some additional opinions here –

A Oh, I'm sorry.

Q – in your supplemental report, so I was just asking you to point out what you had meant or what you were referring to.

A Oh, I see.

Q And what you were saying.

A Yeah. I – I talk about, for example, I clarified some issues around the action of the drug, how quickly I think it would work. You know, the physiological effects, why death occurs from the Pentobarbital. I – obviously, I refute some of the things that Dr. Zivot states, so –

Q Sure.

A – I'm not sure I actually –

Q Okay. Sure.

A I'm not sure I actually changed my conclusion –

Q I think we're on the same page.

A Yeah.

Q Okay. I think we're on the same page.

And I think that's probably a good point to – [126] you want to break for lunch at this point?

MR. SPILLANE: Okay.

THE WITNESS: Sure.

(At 11:55 p.m., the deposition adjourned for lunch.)

[127] (At 12:34 p.m., the deposition of Joseph F. Antognini was reconvened.)

BY MR. FOGEL:

Q Dr. Antognini, right before our break, we were talking about the opinions you've offered in this case.

A Uh-huh.

Q Aside from the opinions that are set forth in your two reports, do you intend to offer an opinion on anything else?

A I guess, if I was asked. I'm intending to write another report. If I mean, do you mean in the context

of offering something right now, more opinions? Or in . . .

Q At – at any point, between when you last submitted your supplemental report –

A Uh-huh.

Q – going forward to this moment, do you intend to offer any other opinions?

A There are some details that I think probably are worth explaining, relative to some of the drug-level issues that I talked about and I think are worthwhile understanding, that I don't think have been completely fully elucidated – or not elucidated, but fully described.

Q Right.

A So yes, I guess there are opinions and things [128] that I want to say that I haven't said yet.

Q During the course of today's deposition?

A During the course of today's deposition.

Q But you're – you do not intend to issue another formal opinion, be it, in a report?

A I don't have that intention –

Q Yeah.

A – but sometimes, I don't know what I'm going to be asked to do.

Q That's fine. Just asking about your present intention.

A Yeah. Okay.

Q Are you offering any opinions on the feasibility of lethal gas as an alternative method of execution?

A Do I? Or have I? Or sorry, what was the question?

Q Have you or are you –

A Or have I.

Q – offering any opinions on the feasibility of gas as an alternative of lethal injection?

A On my initial report, first one that is on – the one dated November 8th, I did offer an opinion, that's summary 23 of that report where I – so obviously, we're, not sure, aware of the some of the ethical issues around recommending one method of execution over another, I guess [129] that's an ethical issue for – for me, not so much for anyone else. But I did talk about the use of lethal gas and basically, I don't offer an opinion about one being better than the other, because I just think that – that my understanding of the use of a lethal gas, and obviously, there are many kinds of gases that can be lethal, that that would not affect the risk of an innate [sic], in particular, this inmate, suffering one way or the other, you know, suffering more.

Q Right. Are you aware that the state has taken the position that lethal gas is not that viable alternative to lethal injection?

A I am aware that – again, I'm sorry, I'm going to have to get into some legal terms that I've – I've heard and I think I have an understanding of them, but basically, that it has to be readily available – a readily available alternative, so what – whether you say that it's – I'm sorry, I'm – I'm going off on a tangent.

Q I don't – I don't intend to make this complicated.

I – are you offering any opinions on the viability of lethal gas as an alternative method of execution? I understand you've rendered opinions in terms of

whether it would be more or less painful in relation to lethal injection.

[130] My question is, are you offering any opinions in terms of its viability –

A Oh, I see.

Q – as an option?

A No, I'm not – I have no knowledge, really, about whether lethal gas is readily available or viable in this area or – or not, I have no idea what –

Q That's what I thought.

A Okay. Yeah.

Q Just wanted to be clear.

A Sorry, yeah.

Q No, that's fine.

Are you offering any legal opinions as to whether execution, in the manner as described, by lethal injection, would constitute a violation of Mr. Bucklew's 8th Amendment rights?

A Well, I don't really – I can't – I'm not in a position to offer a legal opinion, but I – I will say that I was – I did review some court cases, like Glossip, and they talk about – and then Baez, they talk about the issue around; you know, substantial risk, so – I mean, I do have that understanding, but I don't think I'm really offering an opinion, one way or the other, on that.

Q Okay. Are you aware of any errors in your reports?

[131] A Any errors?

Q Either, in the original or the supplement?

A Am I aware of any errors in my report?

Q If you're not aware of any –

A I'm not.

Q – right now, I'm not asking you to look.

A Yeah.

Q Just, is there anything that you want to correct?

A Maybe I should have thought about that question being asked, I wasn't – there are probably things that I would have said differently, I guess, to make it clear, but I don't think I have any errors, so to speak, in this report that I'm –

Q Just – just giving you an opportunity –

A Yeah.

Q – if there was something that you already identified that you wanted to correct.

A Okay. Well, I appreciate that.

Q And if the answer's "no," it's no.

Have you been asked by counsel to undertake any additional or supplemental analyses since you've drafted these reports?

A No, I did not. I was not asked of that, but I did – I did do it, I mean, on my own. I – for example, I found that article that I, again, will provide to you, [132] but I wasn't asked by Mr. Spillane or anyone else to –

Q Have you done any other – besides identifying that article, any other supplemental work or additional work beyond your supplemental report?

A Let's see, so I looked at that – let's see, I – I did review – I did look at some news articles on some, you know, art or [sic] executions that occurred in Missouri,

and some of which were actually written by some of the witnesses, and that's not mentioned in my report. So that – now that I think about that, I did look at that.

Q Uh-huh.

A So let's see, other analyses that I – no, I don't think so. I mean, there – my – my approach I'll be, you know, of course, I'm going to – I'm going to be upfront about any approach, I mean, there are certainly articles – for example, articles that – scientific articles, that I've looked at in my search for some information on this, that I didn't include in my report.

Q Uh-huh.

A And I don't think those articles influenced my – my opinion, because they weren't – they turned out not to be something that I could use or I thought was relevant to what – to what I was looking at. So I looked at those.

Q Right.

[133] A I mean, I don't have a list of those because I never used them, you know.

Q That's fine.

A Okay.

Q That's fine.

Did you have to make any assumptions in forming your opinions in this case?

A Yes.

Q We've talked a little bit about some of them already.

A Such as the speed of injection.

Q The speed of injection.

And what did you assume the speed of injection to be?

A My assessment – or my assumption is probably going to be around 1 ML per second, that's my – that's my assumption.

Q And that was based on –

A Just how quickly I inject drugs – or would inject drugs in a – in a human. In fact, quite frankly, I probably inject – if I were to – I inject drugs more quickly than that.

Q Okay.

A I mean, quite frankly, I do inject drugs more quickly than that, but that was sort of on the slow side, [134] I just made an assumption that it be on the slow side.

Q We also talked about having a – I think you called it a functional IV line?

A Yes.

Q A well-functioning IV line?

A That's –

Q You made an assumption that would be true?

A Yes, that's true. I – I assume that an IV has to be functioning, well-functioning.

Q Any other assumptions?

A Well, on – we assume that the individuals that do this are trained –

Q Uh-huh.

A – and that they've, you know, they've done this before. Or – or obviously, may be the first time for somebody, it's got to be the first time for somebody, at some point in their life. But in general, these individuals are going to be trained in the various techniques that need to be used, so make that – I had to make that assumption.

Q For example, when we saw on the open protocol that it referenced –

A Yes.

Q – you know, provided there are, you know, sufficient expertise or trained individuals.

[135] A Yes. That's what I'm referring to.

Q Okay. Anything else – well, let me –

A Well, and the drug has to be effective; right? It has to be Pentobarbital. I mean, you assume it's going to be Pentobarbital, so you have to – I mean, those types of assumptions, you have to make.

Q Uh-huh.

A I mean, there might – I'm probably sure there are others, I just, off the top of my head, those are the ones that come to mind.

Q Have you met the execution medical team?

A No.

Q Are you familiar with –

A I mean, I don't know – I mean, I have not. I mean, to my knowledge. I mean, right? I was in Missouri –

Q Yeah.

A – for – for one reason or another, a couple times recently. Once, to examine the – the – the inmate, and

then to – for other business. I could have met them, but I wouldn't have known it.

Q Are you familiar with their training?

A I understand that one of them is an anesthesiologist, and I believe there's a nurse involved, and there might be a – maybe a paramedic or something, [136] I'm not sure. I'm not sure about the exact competition [sic] of the execution team. Except, I think one's an anesthesiologist, and one's a nurse – and I'm not even sure they're actually involved in the – I mean, I guess you have a question, what does "involved" mean? But I think they are a part of the team.

Q And you assume they had sufficient medical training and experience?

A Yes.

Q As we've discussed?

A Yes.

Q Okay. Are you also assuming that the execution team, including the medical staff as you described, would be familiar with Mr. Bucklew's medical condition being cavernous hemangioma?

A Yes. I – I – I assumed that. And my understanding, I believe Missouri does a pre-check of the inmate beforehand, so they – they review the – the clinical history. I – I think. I may be wrong about that, I don't – that's my recollection. So they certainly would know about it, but that's my assumption as well.

Q When you say "they," you're referring to the execution team? Or the medical members of the execution team?

[137] A I don't know who is reviewing what. But my understanding is, that there was a review of that process.

Q Right.

A But –

Q But you don't know what information is actually provided –

A No.

Q – to the medical team?

A I do not know that, no.

Q So you're assuming that they're given a sufficient level of knowledge needed?

A Yes.

Q Let me ask you: In your personal experience, what information do you deem important regarding a patient before you administer an anestnetic?

A So we do a thorough history and physical, and we look at – I mean, it's focussed in the sense that we do look at particular organ systems, and – and – and review of – of – of systems. So for example, I'd be interested in knowing their exercise tolerance, what medications they're on, I'd be interested in knowing what their prior experience with an anesthetic is.

During the – the physical examination, I'd be looking at their vital signs, their weight, I'd be looking at their airway, listening to their heart and lungs. So [138] those are the things that I would be focusing on, I mean, that's not everything, but that would be a lot of what I would be focusing on.

Q You, personally as the –

A As –

Q – as the individual administering the anesthetic; correct?

A Correct.

Q And why would it be important for you to become familiar or knowledgeable with that information?

A Well, it impacts what type of anesthetic we use, what the risk would be to the patient. You know, managing the airway, it's just good practice to – to – to do that, because I – you know, another example – or another thing we look for is, a drug allergy; right? You might be allergic to some of the drugs that I want to use, so I have to get that information as well.

Q Are you assuming that all the information that you just described would be available to the medical execution team?

A Yes. I – based on my understanding, I assume they – they would – they would have that information. Or somebody on the team would have that information.

Q Somebody present for the –

A Present, yeah.

[139] Q – execution?

A That's why, in my assumption. I'm not sure that it makes a big difference, though, but that's my assumption in terms of how the execution is carried out.

Q Do you know what a gurney is?

A Yes.

Q What is a gurney?

A It is a – basically, a – a bed with wheels – a small bed with wheels, with a mattress on it, that a – a patient would lay on. If they're waiting to have a procedure done, they're waiting in the preop area before surgery, things like that, yeah. And it has wheels on it so you can wheel them around.

Q What is your understanding of the use of a gurney in the context of Missouri's execution protocol?

A I don't know what they use, if they have a gurney, if they have an OR table. I've – I've seen a picture of it from the internet, I think. I don't know whether – I don't think it's a gurney, but I'm not – I'm not sure. I thought it might be an OR table, but I'm not positive, or a procedural table, I don't really know, I don't recall.

Q Whatever device or sorry, not device –

A Yeah.

Q – whatever structure, whether it be an OR table [140] or a gurney –

A Yeah.

Q – that an inmate would be lying on during the course of the execution, did you make any assumptions regarding whether that gurney or OR table is adjustable?

A I did assume that it could be adjusted so that someone could use it in the sitting position or semi-recumbent, semisitting position. Again, based on my understanding of and experience with gurneys, I mean, almost all gurneys are going to have the ability to sit somebody up, and all OR tables, likewise, have that. So I did assume that would be the case in – in – in Missouri.

Q You – you don't know for sure?

A But I don't know for sure.

Q You don't know for sure; right?

A I don't know for sure.

Q If you found out the gurney was not adjustable, would that affect the opinions that you've rendered in this case?

A No, I don't think so. You wouldn't have to have an adjustable table. I mean, if you needed to sit somebody up, you could do it in other ways besides having a gurney that didn't sit up. You could use a lot of pillows or you – you could use other devices like that.

For that matter, you could use a chair, quite [141] frankly. I didn't see any reason why a chair wouldn't, you know . . . if you wanted to anesthetize somebody, you could do it in – in a chair. I mean, we wouldn't do that clinically. Again, I'm not sort of rendering an opinion about what Missouri should do, but, you know, certainly, in the clinical setting, you could anesthetize people in a sitting position.

Q Is somebody in a clinical setting, when they're anesthetized in a sitting position, are they strapped into the chair?

A Well, we wouldn't use – I – I said chair, and you could do that, but you never would do that clinically. Except, I guess, in – if it's in a dentist chair. I mean, that's not really a chair like I'm sitting in right now, but you could anesthetize somebody in a chair like that. And I apologize, I'm not sure I – what was the question?

Q Do you have an understanding – let me ask a different question: Do you have an understanding of whether the inmate is to be strapped down during the course of the execution?

A I believe – or I assume that they are strapped down, because I've seen straps on these things, on these gurneys or tables or whatever they are, based on the pictures I've seen, and there are straps. So my guess is, [142] that they are strapped down for the, I guess, obvious reason that, they would pull the IV out if they, I mean, almost anybody would that [sic] if they knew they were going to get a lethal injection.

Q If it was determined or if you determined that the individual was required to be in a supine position, so a flat position, would that affect your opinion that you rendered in this matter?

A If – if the – Bucklew was required to be in the supine position, and he does state he has worsening symptoms – his symptoms are worse when he's lying supine, you know, than when he's awake, then if – and he says that his symptoms are worse when he's awake, when he's lying supine, then, yeah, laying supine would be potentially a problem for him.

Now, having said that, he was able to tolerate an MRI, he was supine for more than an hour, he said. So he is able to – to lie supine.

Q Who said that he was able to tolerate lying in a supine position for the MRI?

A He did, when I examined him. I didn't say that in my report I don't think, but there it is, he did say that. I'm not sure if I said that or not. I think it's somewhere in –

Q So we talked earlier and now we're looking, to [143] state for the record, we're looking at Exhibit 2, your supplemental report. And this contains your summary of your examination of Mr. Bucklew, can you point to me where –

A Yes.

Q – in your summary he told you –

A So –

Q – that he was lying –

A – in paragraph 7, it says – I – I quote Dr. Zivot in his publication, and I write, (reading):

> "Bucklew can, in fact, lie flat, according to the inmate, he did so for about one hour while undergoing his recent imaging studies. While he stated he was not comfortable, he was nonetheless able to be flat."

Q So when you say "the inmate," are you referring to Mr. Bucklew there?

A Yes.

Q Well, of course, when Mr. Bucklew was undergoing the MRI, he was conscious; correct?

A Yes.

Q Is that – did you take that into consideration when considering whether Mr. Bucklew could make certain accommodations to handle lying in a flat position?

[144] A Yes. I mean, obviously, if he needs to adjust – and he said that, he needs he needs to be able to adjust his breathing pattern, when – I – that's my – kind of my term that I use, I'm not sure exact words

that he used, but to adjust his breathing pattern essentially to be able to tolerate that.

Q Adjust his breathing pattern, how so?

A Well, if – if he felt as though he was – maybe his uvula, which, of course, is involved with a hemangioma, was getting stuck in the back of his throat, he might be able to position that in some way that he would be able to minimize that. However, with the MRI that was performed on the – the imaging studies that he – that are performed, obviously, of his head, his head has to be pretty motionless, you know, he has to keep still, so it didn't require much – I mean, he couldn't be moving a lot to be able to do that, because you wouldn't be able to get a good image study.

So I just don't see – I mean, again, if he said, "I was able to – to lie flat, and it wasn't comfortable, but I was able to do it," then I have to imagine, if – if this – if he was suffering – had incredible amount of suffering from lying flat, he would not be able to – to do it. And they would not have been able to do the MRI study or the other imaging studies as well.

[145] Q You did not, personally, observe Rusty lie flat during the – during the MRI; is that right?

A No, I did not.

Q Do you have any other basis for your conclusion aside from what Rusty – you said Rusty told you during the examination?

A Yeah. I – I thought Dr. Zivot said the same thing, but I'd have to refer to his report to see maybe I mis- – maybe I don't know that. You know, but I thought he said essentially the same thing.

If we have Dr. Zivot's report somewhere, I could –

Q We do.

A – look at that.

MR. FOGEL: We're at 6.

(Whereupon Exhibit 6 was marked for identification by the court reporter and is attached hereto.)

THE WITNESS: And this would be his supplemental report.

BY MR. FOGEL:

Q Is that right?

A Right. I could be wrong about that, but I thought I might have seen –

[146] Q That's why we gave you the report.

A Yeah. Too bad we didn't have this as a – I know we have it as a PDF, you could search for the word, it would be a lot faster. Okay. So – all right. Let me go back this way.

Q And doctor?

A Yes.

Q Is your recollection or what you might be looking for, that Dr. Zivot said that he – Rusty lied flat during the MRI, is that what you're saying?

A That he lied –

Q And –

A That – that – my – my recollection was that he made a statement, similar to mine, which is that, yeah, he was able to lie flat, but he wasn't comfortable. He probably didn't use those words, but my recollection may be wrong, maybe he didn't say that at all. I mean, he just – I'm trying to find the spot where he

talks about the – the MRI was – showed that the mass was smaller.

Okay. He reported, (reading):

> "Experiencing extreme discomfort during the procedure. In order to maintain the integrity of his airway while lying flat, Mr. Bucklew was forced to consciously alter his breathing [147] pattern and swallow repeatedly to keep his uvula from settling and completely obstructing his airway in order to avoid checking."

Bucklew did not report to me or say extreme discomfort. So –

Q That last sentence you just said, are you reading from Dr. Zivot's report? Or are you just –

A From – sorry. So I read from No. 7, on page 8. Where – where Dr. Zivot asked Bucklew to describe his experience during the MRI procedure. So –

Q Do you think Mr. Bucklew would be capable of doing, as he told – excuse me, Dr. Zivot during the execution process? Meaning, consciously alter his breathing pattern and swallow repeatedly to keep his uvula from settling and completely obstructing his airway in order to avoid choking?

A He would be able to do that when he's awake. But once he's received Pentobarbital and he's unconscious, he's – he's not capable of doing anything. But it wouldn't be necessary for him to be able to clear his airway because he's not going to sense any type of blockage.

Q Sure.

A Yeah.

[148] Q And I understand that's another part of your opinion, which well get to later, but –

A Right.

Q – just, there is a distinction, do you agree, between when Mr. Bucklew is conscious during an MRI procedure versus the execution protocol – under the execution protocol, when he's administered Pentobarbital? In terms of his ability to manage his airway.

A There is a difference in a sense that, obviously, an individual who's about ready to die is probably going to be stressed. But I don't know what other difference there would be, I mean, I don't know how to address that issue about him having an MRI or having, you know, lying flat for – for an execution in terms of, you know, the difference between his ability to maintain his airway.

Q Well, you were drawing a comparison. Because we were talking about whether the gurney –

A Right.

Q Assuming it's a gurney. Whether he's lying flat and what that might mean in terms of his ability to manage his airway, and what pain and suffering he might suffer or endure. And you said, drawing upon your examination, that because he was lying on an MRI table for an hour, you thought it would not be an issue?

A That is correct. That he – so –

[149] Q And – and – sorry.

A So the question that I'm thinking in my mind or to answer your – your question about this is that, can Bucklew lie flat for an extended period of time? And in this case, we'll make it an hour, because that's

apparently how long he had to lie flat for these exams. And, yes, he could do that. Was it comfortable for him? No, it wasn't.

He described it not being comfortable, but he was able to do it. So could he do that on an execution table, would he do it on an execution table? I don't know. I mean, my guess is that – my opinion is that he could do it if he wanted to. On the execution table, he could maintain his airways, just like he did in the MRI scanner.

Now, the question is, would he want to? I don't know. I mean, his alternative is that he's going to choke while he's awake, but that's something he's going to be doing on his own. But clearly, he's able to – to maintain his airway lying flat, because he did so on the MRI exam.

Q Under extreme discomfort, do you dispute that he experienced it under extreme discomfort?

A I dispute the term "extreme," that's not the way he described it to me. He, being Bucklew.

Q Do you agree that lying in that position causes [150] stress?

A For him, lying – lying flat, yes. That would increase his stress level, because he has to focus on his airway management basically.

Q Does it make it more difficult for him to breathe, lying in the supine position?

A Compared to a semirecumbent or sitting position, yes.

Q Okay. Do you consider an execution a medical act?

A No.

Q How is a physician's practice applicable to the execution setting?

A A physician's – say that? A physician's –

Q Well, we've – you – you've referenced the clinical setting –

A Yeah.

Q – a handful of times today. How is that different than an execution setting?

A Well, obviously, many things that are done in an execution setting are things that we've done in a clinical setting, so start an intravenous line, if we have to start – if they have to start a – a central line, those are things that we do clinically. Clinically injecting the drugs.

[151] But some of those things we would do in a clinical setting, you wouldn't do, I guess, based on my understanding, in the execution setting. So you wouldn't – you'd give a much larger dose of the drug, you wouldn't resuscitate them and so forth. You wouldn't breathe for them, that kind of thing.

Q So there are some things that happen in the clinical setting that are not applicable to the execution setting and vice versa?

A Correct.

Q Can you look at Exhibit A to your November 2016 report? It's Exhibit 1.

A Uh-huh.

Yeah.

Q And is Exhibit 1 your curriculum vitae?

A It is.

Q Or your CV?

A Yes. Uh-huh.

Q Is this accurate? Are there any changes that need to be made?

A To my knowledge, it's all accurate. I am still, to my knowledge, a – a voluntary clinical professor of anesthesiology at UC Davis. I haven't been told otherwise. I currently work part-time for the joint commission . . .

[152] Q So you did not include a CV with your supplemental report?

A Yeah.

Q So this is –

A That's correct.

Q – the true and correct version?

A Yes, that's correct. It has not changed since then, so . . .

Q Now, it says from September 16 – excuse me, September 2016 through present, and I'm looking under professional positions –

A Yes.

Q – on the first page of your CV, you're a physician's surveyor –

A Correct.

Q – is that right?

A Yes.

Q What – what is – is that?

A So the joint commission – what the joint commission does is, they survey hospitals. So they go

to hospitals and they look at different processes, and there's usually a group of three to four to five people that do that, and usually it's a physician that's in – at least one of the individuals is a physician. And they might look at certain things that would only apply to his [153] sort of physician-involved activities, and so that's what I – I do. I might survey parts of a hospital that a nurse would survey, but there are some specific areas where only the physicians survey. So they hire physicians to do that.

Q And what exactly are you surveying?

A As a physician?

Q Yeah.

A So I might go in to the operating room and watch their processes of how they manage their instruments, how they – there's something that's called a timeout, where you're supposed to take a time out and you identify the patient before the procedure, you know, the right – is it the right patient having the right procedure, that kind of thing.

So you make observations of their practice, doing things like that. It's – you make observation [sic] of how patients are taken care of in the intensive care unit, so you might look at some orders and say, "Well, the physician ordered such and such, did the nurses follow those orders?" So it's really more around looking at processes, some of these clinical and operational processes –

Q Sure. You, yourself, though, are not operating –

[154] A No, I am not.

Q – on a patient?

A No, I am not.

Q Got it.

A No.

Q Are you operating – or currently –

A I am not.

Q – practicing as an anesthesiologist in any capacity?

A I have not anesthetized anybody since December of 2015, so it's been over a year. So I'm not clinically active right now.

Q Are you retired?

A From the clinical practice of anesthesiology, I retired. I'm not doing it. Will I return to it? Never know, but right now, I'm not doing it.

Q Why did you retire?

A Mostly personal reasons. So we have a son that moved down to Escondido area, we wanted to be closer to him, there was a time in my life where I could do that, so I just – financially, I can do it, so I just decided to stop practicing.

Q Is there a – do you have a medical license?

A I do.

Q Is your license currently active?

[155] A Yes.

Q Ever been suspended?

A No.

Q Are you currently a professor of anesthesiology?

A My title is voluntary clinical – where is my CV here. Have to pull it up. I believe that's the accurate title: Clinical Professor of Anesthesiology and Pain

Medicine. And it's a voluntary clinical faculty appointment.

To my knowledge, that's still active, I haven't been told otherwise by UC Davis. When I was there the last couple of years, that was the title – the – I had the clinical professor part, but the volunteer part was only made once I – I retired and became a volunteer, basically. So I think that's an accurate statement. And the reason why I may be a little bit equivocated on that is, because, you know, if you were to call UC Davis and say, "What's Dr. Antognini's title?" Sometimes the – it might be professor of clinical anesthesiology and pain medicine, not clinical professor. And some of these series are a little bit confusing about that, so I think I have that correct.

Q Are you compensated for –

A No.

Q – for your position at UC Davis?

[156] A I am not.

Q Are you compensated for your work as a physician's surveyor?

A Yes.

Q Aside from that, do you receive any other – what are your other current sources of income aside from, perhaps, passive investments?

A I have done work, obviously, for the State of Missouri. I've worked on other cases, which I described. Which, for example, the case in Ohio. And then I did some work for the State of Mississippi about a year ago. Similar lethal – lethal injection issues, and then I also did some – a – legal work or expert witness work for the – for a hospital in California that was

being – it wasn't being sued by a patient, but it was – it was being basically fined by the State of California because of something that happened, and I represented – I was the expert witness for the hospital in that – in defending that.

Q Was that an administrative proceeding?

A Yes.

Q Before the N-L-R-B?

A No, I don't think it was that. I'm not sure, it was a State of California administrative hearing of some sort.

[157] Q It was an administrate [sic] hearing?

A Yeah. It wasn't –

Q You said work you've done for the State of Missouri, have you have done work for the State of Missouri outside of this expert retainment?

A No, I don't – no. No.

Q I just wanted to clarify what you said.

A No, I have not.

Q Okay. So let's talk about the work you've done in connection with the Ohio matter.

A Yeah. Uh-huh.

Q And did you serve as an expert witness –

A I did.

Q – in that case?

A I did, yes.

Q And what opinions were you asked to – or what opinions did you render in that case?

A Basically, the – the – there are a lot of opinions that I did render through the course of that work, but essentially, the – the main opinion that I rendered was whether the dose of Midazolam that they were going to use, which is 500 milligrams, was sufficient to produce unconsciousness to the extent that the inmate would not experience or be – be conscious of the other two drugs that are administered, which are a paralytic, [158] and then potassium chloride. That was basically what I was asked to – to render an opinion on.

Q And what was your opinion?

A My opinion was that the – that dose of Midazolam was sufficient to render an inmate unconscious, to the extent that they would not be aware and – and have the sensations of the two drugs, that is the pain associated with potassium chloride, and then also, the paralytic drug.

Q You said the pain that's associated with potassium chloride?

A Yes.

Q That chemical can cause pain in an individual when it's administered via an IV line?

A That's correct.

Q And so your opinion was, because the patient is unconscious at that point, they would not experience any pain?

A Yes. The inmate. The inmate would be unconscious and would not experience any pain. Which, as I said earlier, pain is a conscious awareness of a noxious stimulus.

Q How long, in that context, would it take to render the patient unconscious from the administration of Midazolam?

[159] A Midazolam?

Q Midazolam.

A M-I-D-A-Z-O-L-A-M.

Q How long did it take to render the patient unconscious after the administration of Midazolam?

A We did not – I do not recall if I made any opinion about how long that took, quite frankly. I – I'm not sure I rendered an opinion on that. I'd have to review my testimony and [illegible] that.

Q You just rendered an opinion of whether or not they would be unconscious?

A I did. I could have said also, how quickly it would happen, but I don't – I'm not sure that I actually asked made a statement in regards to how long it – it would take. I'd have to review my testimony and my – my report there.

Q Is Midazolam a barbiturate?

A No, it is not.

Q Are there any similar characteristics between Midazolam and Pentobarbital?

A They both work with the GABA receptor; although, their actions at the GABA receptor, they work at different sites of the GABA receptor, based on my understanding. So even though they both work at the GABA receptor, doesn't mean they both function in the same way. In fact, they do [160] have – they are dissimilar in terms of the effects that they do produce, because of that. What was – there's more – I'm going

to answer more, but I want to make sure that I've got the question. What was the question?

Q I was asking if there were any similarities between the two drugs. And I think you probably have gotten to that question.

A So yeah, there — so there's that similarity. I – as I said earlier, I believe they can both produce unconsciousness. Now, can you get deeper levels with Pentobarbital than you can with Midazolam? The answer is, yes. But I – my opinion is that the level that you achieve with Midazolam is sufficient for what its intended use in that setting.

Q So explain that to me.

Deeper levels, are you referring to deeper levels of unconsciousness?

A Yes.

Q So –

A And it's –

Q Are there various levels of unconsciousness?

A Yes.

Q What does that mean? Or tell me about these various levels.

A So you could think of consciousness as being on a [161] spectrum. So we're all awake right here; although, I can see some of you may be nodding off a little bit. But I'm not a charismatic and energetic kind of person, but anyway, that's why I'm an anesthesiologist; I put people to sleep.

But there's a spectrum. So we're all awake. And then you have basically on the other end of the spectrum, deep coma, where someone could be brain dead,

basically. So there's different levels of consciousness across the spectrum. So what do I mean by that? So for example, someone may be fallen asleep, and you may say, "Larry, wake up." And you don't wake up, but then I nudge you and you wake up. As you get into deeper sleep, even a nudge may not wake you up, I have to really shake you; right?

With drug-induced unconsciousness, there's a spectrum and you get into levels where even shaking and noxious stimulation, you don't get any response. So you can assign consciousness according to that scale, and most people would define unconsciousness as occurring when they fail to be aroused from a non-noxious stimulus.

Now, that's arbitrary, which I think came out in the – I'm not – I think that's, you know, some people might say it's, you know, you have to – if – if they arouse with a noxious stimulus, that would be sort of the line between conscious and unconscious, so there's some [162] arbitrariness in that. But it's a spectrum, so when people throw this term around, of unconsciousness, it's not an all or none thing. It's not like you're conscious and you're unconscious, it's really a spectrum. And I think that's where a lot of the issues come up about how we apply these issues – this type of knowledge to this setting of lethal injection.

Q Did you specify where, on this spectrum, Mr. Bucklew would be, when you state that he would experience rapid unconsciousness?

A I did not specify. I may have used the term coma somewhere in there, I don't remember if I did or not, but . . .

Q I – after reviewing your report, I don't recall seeing the word coma?

A And you don't want me to go through it again.

Q Well, I guess the more fundamental question is, do you know where Mr. Bucklew would be on the spectrum of unconsciousness?

A He would be at the far end, basically brain dead. I mean, he wouldn't – at that dose of – of Pentobarbital, you would – I – I'm going to backtrack a little bit here, just to – to clarify one thing:

So when you give a huge dose of Pentobarbital like this, again, based on my understanding of how it's [163] given and all that, and I've never done it myself, but one of the, you know, bar – barbiturates do decrease the blood pressure, so you're going to have a huge decrease in the blood pressure in somebody. That's sort of separate in a way from the unconsciousness that occurs from a drug.

If you could maintain their blood pressure at this large dose, you still have deep coma, like a brain-death type of coma, where the brain is silent, neurons are not firing, the EEG has flat lined. So Pentobarbital at this dose would – I mean, even at a fraction of the dose would cause that type of picture. So Pentobarbital, you'd be at the far end of the spectrum. No question about it. Where there would be deeply unconscious comatose brain-dead type of picture.

Q Do you know how much Pentobarbital would need to be administered in order reach that level of unconsciousness?

A Probably my guess – so – so – I'm – again, I am – I have never used Pentobarbital as an induction agent. To my – my recollection, I've never used it as an induction agent. When I use that term, I mean if I were to take you and you were going to have surgery,

and I'm going to induce anesthesia, I – I would not use Pentobarbital.

The closest I've ever come is Thiopental. But [164] Pentobarbital and Thiopental are very similar in terms of their doses for that purpose. So when I, you know, if I give 500 milligrams of Thiopental to somebody, you can achieve these – at least transiently, you can achieve that deep level that I'm talking about. So I think with Pentobarbital, 500 milligrams, you can do that as well. But of course, they're – they're giving 5,000 milligrams, so that's why I say a fraction of the drug would – would get you to that endpoint.

Q Right. But you don't know when or how much or how long it would take?

A I don't know – I don't have any firsthand knowledge, no. I have had to – as I – I said earlier, I've had to piece together some information that I pulled from the literature.

Q So you're – these most recent questions have focused on, I suppose, the far-end of the spectrum, when we're talking about this deep level of unconsciousness. And it's your opinion that the individual does not experience any pain or suffering at that level of the spectrum because they cannot experience an emotional response.

Do I have that right?

A That's correct, yes.

Q And what about closer to the other end of the [165] spectrum? Can individuals still experience pain and suffering under your definition?

A Well, it depends on where you want to put them on that spectrum. So yes, it could be, you know, if you have awake on one end of the spectrum and a coma,

deep, deep coma, brain death on the other end of the spectrum, somewhere – somewhere along that continuum, people are going to be able to experience suffering and pain.

Q Yeah, sure.

A I don't know where that is exactly, and it kind of depends on your definition.

Q So if Mr. Bucklew was not in this deep level of unconsciousness, yet was somewhere else on the spectrum, it's possible he could still –

A Yes.

Q – be experiencing some pain and suffering?

A Yes. But as I pointed – yes, that's true.

But as I pointed out, he's not going to be on this end of the spectrum, he's going to be on the very far end. That's my opinion.

Q Understood.

A Yeah.

Q Now, on this – closer to the awake end of the spectrum, would a person who – appear unconscious to someone, even though they're not, in this deep level of [166] unconsciousness?

A They could appear to be unconscious, yes. Because unconsciousness, you know, you – you look at consciousness – if you're going to take a strict medical scientific approach to it, you just don't look at the person, you'd have to do other things to, you know – you know, you might nudge them and that kind of thing and see if they wake up or not.

Q Right. So just the naked-eye observer wouldn't be able to determine whether the drug had taken full effect simply from just observing?

A Right.

Q Okay.

A So just an example: If you were to close your eyes right now, I have no idea whether you've closed your eyes and you're awake, or whether you've fallen asleep. I mean, I don't know.

Q Would you say the same is true for a nonmedical person, who is observing somebody during the execution process?

A Yes.

Q Okay. Have you ever witnessed an execution ever?

A No.

Q Have you ever worked for the Missouri Department of Corrections?

[167] A No. I mean, I don't know what this relationship –

Q Outside of this current –

A Yeah. No, I have not.

Q – working relationship?

A No.

Q Have you ever been consulted or ever worked for any states' department of corrections?

A No.

Q Ever consulted on the drafting of an execution protocol?

A No.

Q The use of chemicals for lethal injection?

A No.

Q Feasibility of an execution method?

A No.

Q Do you have any views on capital punishment that were germane to the opinions you rendered in this matter?

A I have ambivalence about it. So my ambivalence, there's three – I think, I'm balanced; I'm against the capital punishment and it's primarily – so I have three basic prongs of my approach to this: Two are religious and one is a sense of fairness.

So on a religious perspective, yeah, the Old Testament, which basically – if I may paraphrase, an eye [168] for an eye, and a tooth for a tooth; and then you have the New Testament, where Jesus says, you know, "Be forgiving," so I – I do struggle with that morally and as a Catholic.

And then, from a sense of fairness, I know that there probably have been individuals that have been – that are on death row that may be innocent. So I think that's the most – the strongest feeling I have about my feeling on capital punishment that – I think that's the – fundamentally, the most unfair thing that a government can do is, to take the life of an innocent person. So those are sort of my – that's my perspective on capital punishment, but . . .

Q And it – sorry, go ahead. I was going say, I don't intend to probe –

A Yeah.

Q – the – your personal –

A Okay.

Q – perspectives here, but I'm just curious to the extent that they were germane to the opinions you rendered in this case.

A No, they weren't – they weren't germane. I mean, I think that one of the main – the main things that has driven me to, you know, to – to testify in these cases is, that the – basically that, you know, you're – you're representing the – the defendant, or, I guess, the [169] plaintiff in this case, and – and I represent the – am an expert witness for the defendant –

Q Huh-uh.

A – which is the State of Missouri.

Q Yeah.

A So I – out of a sense of fairness, I mean, if I were to ask the question of somebody, and I sort of played with this in my mind about, you know, do you believe that a defendant has the right to adequate counsel? And do you believe that a defendant has the right to expert witnesses? I think we'd all say yes.

Well, in this particular case, the defendant is the State of Missouri, so I feel that they need have some type of expert represent- – representation to be able to make their case. So that's the other thing that drives me – why I would – I would do something like this.

Q Aside from the Ohio case and this present matter –

A Right.

Q – you also mentioned the Mississippi case?

A Yes.

Q What opinion did you render in the Mississippi case?

A Basically, the same as I did in Ohio. It's essentially the same type of information – or the same [170] type of questions. You know, does Midazolam render somebody unconscious to the extent that they would not be able to perceive the effects of the other two drugs. It's been a long – it's been over a year since I was involved with that case, so I – you know, I can't remember exactly everything I said, but that's the gist of it.

Q And what was your opinion?

A Well, that Midazolam would produce a level of unconsciousness that would render the inmate incapable of sensing the effects of the other two drugs, sensing in – in the sense of –

Q Experiencing pain?

A – experiencing pain and so forth, yeah.

Q So very similar to the opinion that you rendered in the Ohio matter.

Are there any other cases that you rendered an expert opinion on, that relate to capital punishment?

A I don't – no, it's been Mississippi, it's been Ohio, and then now Missouri, so I don't – no.

Q Have you ever rendered an opinion where you concluded that the inmate would not ex – would experience pain?

A In – in those three cases – those three? Or any?

Q Either in those three cases or in some other [171] matter.

A Do you mean in a legal setting? Or just in general about discussions around capital punishment?

Q Let's start, first, with the legal setting.

A No. I've not been provided any opportunity – I've never had – you know, it's only been in those three cases about –

Q What about outside of the legal setting?

A Well, I guess, you know, there's – we – I've had discussions in – in various social settings about capital punishment, but I don't remember anything specific about that, and I didn't – so . . .

Q Have you ever had your opinions challenged as being inadmissible under Daubert or a related doctrine?

A I'm – I'm not familiar with that, so I don't know whether anything I've admitted or anything that I've said has been inadmissible. Do you want to –

Q Do you know what the Daubert motion is?

A No, I don't think – I might, but I – I can't tell you off the top of my head.

Q Are you familiar with the concept of challenging an expert's report as inadmissible?

A Yes. Yeah.

Q Are you aware of a report – a judge ruling that any opinion that you've submitted in a matter was [172] inadmissible?

A My specific opinion in a case?

Q Uh-huh.

A No. I mean, I know that I – certainly, with the Ohio case that I just testified at, there – there was

a challenge by – well, I'm not sure – I'm not sure challenge is the right word. But, you know, we went through the usual thing, where I was asked questions about my background, and – and the attorney for the State of Ohio said, "I'd like to stipulate," or whatever word that was used, I forgot what words that you guys use, but admit Dr. Antognini as an expert witness, and there was no from – from the other side. And then I gave my testimony.

And then when I was being – under cross-examination, they brought up the issue about my CV, I'm retired, and, you know, walked through that issue about how they – you know, obviously, they were getting at the issue of can I give expert testimony when I'm retired, which I think I can. But you'll have to decide for yourself, and the Court will have to decide that.

Q But are you telling me that no court has ever ruled –

A As far as I know.

Q – your opinion as –

[173] A As far as I know.

Q Okay. So going back to your materials reviewed and your November 2015 report, Exhibit B.

A Okay.

Q Let me know when you're there.

A Yes.

Q Who's – who selected the documents for you to review?

A These were documents sent to me by Mr. Spillane.

Q Did you ask for anything beyond what's listed here as well as under your materials reviewed in your supplemental report?

A I – I – I don't know, I mean, I probably did ask for some things. But off the top of my head, I'm trying to think what – what they might be. Well, for example, I mean, one thing that comes to mind, is that I was – I was asked to – I shouldn't say – Dr. Zivot refers to a scan that was done in 2005 on this inmate, and I don't think that I was ever sent the results of that scan, but he apparently had access to it, and I was never about to find that – the results of that scan.

And I asked Mr. Spillane about that and I don't think he's been able to find it either. Now, there are over 5,000 pages of medical records that were sent to me. So, again, I told you I was a numbers person, I'm [174] thinking, "My God. There's a lot of these," so I counted – I mean, I didn't count them, but you do it in PDF, so there's over 5,000 pages of medical records, so I guess it could be in there, but I didn't see it and he couldn't find it. So that was one thing that I – I –

Q Anything else?

A Let's see here, so I was interested in what happens during the execution, itself, is there any medical – not medical. Is there any information about the execution, itself, that would provide guidance to – to me, but I was not provided that information, you know, I don't know whether they – what they do in terms of taking records.

I mean, sometimes I think my understanding is, that they – I don't know what happens in Missouri. But I do remember, I think, seeing from the other cases they had or someone provided me with some notes on Florida executions, and I – I – I'm sorry, I

don't remember if it's from Ohio, from Missouri, or where it was, but that made me think, you know, is that a type of information available, and I was not provided any information. So I, you know, maybe you don't take that information, I don't know.

Q You – you did receive and review Missouri's open protocol; correct?

[175] A Yes.

Q Are you aware that Missouri also has a closed protocol?

A Yes. I did not know until I think you used that term this morning, about open versus closed. I know that there's more to the protocol than what I was provided, but I've not been provided the protocol – the – the closed protocol.

Q Did you ask to review the closed protocol?

A No, I didn't actually. I did not ask for the closed protocol, as far as I – I recall. And I think primarily because I had sufficient information with the open protocol to render my – my opinion. Although, maybe the closed protocol has some information, like the rate of injection, that would have been useful to me. But anyway, I was not provided that information.

Q So is your awareness or understanding of the execution process that Missouri limited to what is in the open protocol?

A I'm trying to think, is there anything – any other information that I received about the process. I think so, I mean, I'm thinking, maybe, there might have been something that Dr. Zivot would have put in his report that might have – I suspect it would be the same thing. And, you know, he – he would have gotten to the open [176] protocol. So I – I guess, yes, it's limited to

the open protocol. I can't think of where – where else I would have gotten any other information about it.

Q Is your understanding of the execution process at all informed from conversations with the State Attorney General's Office?

A No. It's not, no. I mean, obviously Mr. Spillane and I have had discussions about, you know, alot of these issues, but nothing that he said is – has really informed me about – it might – doesn't make my opinions.

Q What did you confer with – confer about with Mr. Spillane or somebody else from the Attorney General's Office that you relied on in forming your opinions?

MR. SPILLANE: I'm going to object to the form of the question, because I think he just said that I didn't tell him anything or anybody else told him anything that formed his opinions.

But you can answer.

MR. FOGEL: Perhaps, I misheard or misunderstand what the witness said, but if that's true, then you can state as much.

THE WITNESS: Well, nothing that Mr. Spillane said to me, helped me to form my – my opinion. I mean, there's nothing that he said that I used to rely upon my [177] opinion. To form my opinion.

BY MR. FOGEL:

Q I'm thinking, in particular, about a statement you put in your materials reviewed. And you say, (reading):

> "I reviewed the pleadings in this case to gain a general familiarity with the matters at issue and

a contentions of the parties. I have conferred with the attorneys for defendants."

So just to be clear, anything that you conferred about with the attorneys for defendants, is there anything that you took into consideration when forming your opinions?

A No. No. I'm – I'm – no.

Q We talked a little bit earlier about the Pentobarbital package insert.

A Yes.

Q Was that provided to you by the State?

A No. No.

Q Sorry?

A No. I got that off the internet.

Q Okay. Is it your understanding that – well, does the package insert refer to a specific type of Pentobarbital? A commercially –

[178] A It does.

Q – manufactured?

A This particular – this particular package insert refers to the Akorn brand. But that was just – that was one that I grabbed off the internet.

Q Is it your understanding that it's the same type of Pentobarbital that would be used in Missouri's execution?

MR. SPILLANE: Well, I'm going to object to that question. That's – that's state secret of what we use, whether it's compounded or manufactured, because it could lead to the identities of the suppliers. So I'm

going to direct him not to answer anything that might lead to whether we use compounded or manufactured.

(Whereupon the witness was instructed not to answer.)

THE WITNESS: I don't know what they use.

BY MR. FOGEL:

Q Okay.

A I'm – I'm told it's Pentobarbital. I just Googled Pentobarbital package insert, and this is the – one of the first ones that comes up.

Q That's – to answer my question, the purpose of the question is not to try to get at the origin of the type of Pentobarbital uses [sic], but why Dr. Antognini used that information and how we relied upon it.

[179] A Yeah.

MR. FOGEL: Okay.

THE WITNESS: That's basically, I guess, if you Google those two, I think that's one of the first things that comes up, so that's what I grabbed.

So – and for the most part, I don't want to say 100 percent, but for the most part, package inserts are very similar, from one manufacturer to the other. I'm not sure how many people manufacture Pentobarbital, but for most drugs, it's going to be the same.

BY MR. FOGEL:

Q I'm looking at your supplemental report now.

A Uh-huh. Uh-huh.

Q At paragraph 6, it talks about large dose [sic] of Pentobarbital, such as the 5 grams, would cause

respiratory arrest and cardiovascular collapse, leading to death. What was your basis for that understanding?

A So if you look – if you go to that website, as I recall that's – what I wrote there, in No. 6, is basically a summary, a synopsis, of what the effects of Pentobarbital are. So obviously, we know that people do not use that dose in a clinical setting.

So this particular website doesn't state that, you know, if you get 5 grams of Pentobarbital, this is what's going to happen. It basically states that if you [180] use Pentobarbital, these are the risks involved, basically respiratory arrest and cardiovascular collapse. And if you don't resuscitate somebody, you know, if you give somebody sort of a – I don't want to say a clinical dose, but if you gave them a low dose in a clinical setting, these are the things that can occur. So obviously, if you gave a large dose in an execution setting, you're going to get the same thing.

Q So that understanding that you just explained, is that based on your review of the website article –

A That –

Q – that you got off the Internet?

A That particular statement is supported by that particular reference; although, you know, I've made claims like that in other parts of my reports and they may be supported in the same way, but from different sources, you know, this is not the only source that would support that particular statement. So for example, if you look at the package insert, basically, you would read the same thing.

Q Are you aware that the open protocol contemplates the use of Pentobarbital beyond the 5 grams – the original 5 grams that are administered?

A Yes.

Q Why do you think it contemplates the use of additional Pentobarbital?

[181] A So my guess is that it's out of abundance of caution; although, it may seem like a paradox when you're talking about the lethal injection process, but it's basically to ensure that, if there were any issues of with [sic] the delivery of the first dose of Pentobarbital, you know, you have a protocol that says you can give another dose. But 5 grams, if, again, properly administered through a functioning IV, would be sufficient. But the – probably – I don't know why they put that in there, you'd have to ask them, but my guess is, because you want to have that capability.

Q In the event that an inmate did not die from the original administration of 5 grams?

A That's correct. That's my assumption, sure. Yeah.

Q What did you do today to prepare – or what did you do to prepare for today's deposition?

A I had a nice breakfast with Mr. Spillane, and then we spent a few minutes just going over some of the points that – the major points that would probably be brought up in the deposition. In terms of the action of the drug, and its ability to produce unconsciousness, how fast it would work. You know, basically telling him this is – this is – if I were asked these questions, which I suspect I will be, this is how I would reply to them.

[182] Q Did you review any documents?

A I looked at the reports. I looked Zivot's reports [sic], and I looked at my own reports. I looked at the – I have a copy of the – that pharmacokinetics paper –

the one that I cited, not the other one that I did not cite, but I mentioned this morning. I think I looked at that.

Q Aside from that one article, and I think you said it was a dog study –

A Yes.

Q – do I have that right?

A Yes, correct.

Q And by the way, did it study humans as well? Or just dogs?

A Well, as I said, there is a paragraph – it's a penultimate paragraph in the paper, and a discussion that they said – they basically gave Pentobarbital to humans, looking at the EEG and the onset of the – the change of the EEG with Thiopental and Pentobarbital is about the same time. So I think it's 15 to 30 seconds. They don't state what the dose was in that – in that paragraph. And then they say that the – it took Pentobarbital a little bit longer to have – I think they used the term "full effect." Not sure if that's what it was.

And then – but within one or two minutes, it [183] said that it had it – its full effect. And that was presumably at a dose of – I don't know what the dose was, but my guess is, it's probably going to be similar to the dose they used for Thiopental, 500 milligrams, 400/300 milligrams, it's not clear because they don't state what that dose is.

Q Well, full effect, meaning death?

A No. Full effect, I think, in terms of consciousness. Now –

Q So it took a minute – it said it –

A If you want –

Q – took a –

A – I can pull it up on my computer.

(Whereupon there was unreportable crosstalk.)

BY MR. FOGEL:

Q We can look at it later.

A All right.

Q I just wanted to make sure I understood what they were studying.

A Yeah, I cannot –

Q And what they were not studying.

A I cannot remember the specific language – you know, the words that they used, but that's my recollection of, you know, the verbiage basically.

Q Got it. Aside from that one report or study –

[184] A Yeah.

Q – were there any other documents that you reviewed, in preparation for your deposition, that you did not review in connection with your reports?

A Well, I told you – I mean, there – like I said, there are some papers that I looked at, that I said these don't really apply, and I don't remember what they are, but there's nothing – and there may have been some papers out there that I – I – I reviewed that basically – so there might have been, let's say, three papers that I reviewed and supported a particular point that I wanted to make, but I only cited one of those papers, so there might be some papers like that out there that I – that I looked at.

But I, you know, there's nothing out there that I – that I reviewed that supports my opinion, basically, that – that I didn't include in here. Again, I mean, I – again, except for the situation, where there may be three papers, as an example, and I only cited one of them.

Q Has your review of any of these materials that you looked at informally/formally caused you to change your – or modify your opinions in any way?

A No. No.

Q In your opening report, under your materials reviewed –

[185] A Uh-huh.

Q – is a document 263.

A Yes.

Q Do you know what that is?

A I'd have to – I – I don't remember what that is. These are all – these – these were documents that were sent to me, and they – they were numbered, and that's how I put them in there. Is there not a Document 263?

Q Well, there – there is at least some confusion on our end and perhaps –

MR. SPILLANE: If we could go off for a minute.

MR. FOGEL: Yeah. Okay.

(Whereupon there was a break in the proceedings.)

BY MR. FOGEL:

Q So I want to go back to the opinions we were talking about earlier, that you've rendered regarding whether Mr. Bucklew would experience any pain.

A Yes.

Q And again, I just want to make sure we have this established as the baseline: It's not your opinion that Mr. Bucklew would not ex- – strike that.

Are you opining that Mr. Bucklew would experience no pain?

A During?

[186] Q During the execution process.

A It is not — I – it is my opinion that he would not experience pain except for the insertion of the IV, which I said earlier, but that the injection of the Pentobarbital through a properly functioning IV, would not cause, in and of itself, pain to Mr. Bucklew.

Q So let's talk through the execution process, drawing, of course, upon your understanding of how it works.

And we've talked about Mr. Bucklew being in – strapped to a gurney or an OR table, some sort of surface. Do you know how long Mr. Bucklew would be positioned in that – let's call it a gurney for now?

A I do not know specifically. I can — I have a guess in my mind, but I don't know specifically how long that would be.

Q Does it depend, in part, on how long it could take to find a strong – a good IV line?

A Yes, it would.

Q And you mentioned that somebody – I think you used the example, in your clinical practice, you've had patients where you've had to try ten different IV locations; is that right?

A Some patients have gotten that many, yes, maybe – yeah. I mean, I – I – I use that number, [187] I – I suspect that some patients that I've – hopefully I – not my personal patients, but others that I've seen have had that many IV sticks, so it could be up that high.

Q And that, of course, takes time.

A Correct.

Q Each attempt.

A Correct.

Q And we've established already, that when Mr. Bucklew was lying in a supine position, it's uncomfortable for him to lie in that position; is that correct?

A It is uncomfortable for him, that is – that is what he reports, yes.

Q Is it your understanding that when Mr. Bucklew describes it as uncomfortable, he is experiencing pain when he's lying in a supine position?

A When – he – he states he's got pain all the time, no matter what position he is; and he's got pain in his face. And I – maybe I didn't say that in my report, but he has pain in his face and in that area, so he's – he has that as a baseline. So . . .

Q But I'm – I'm talking specifically when he's lying in a supine position.

A No, I don't think he describes it as being painful, he just describes it as being uncomfortable. I [188] mean, the inability – or having problems with – with breathing, we've all experienced that for one reason or another, it's not really painful, but it's uncomfortable.

Q Sure. So let me substitute – or remove pain, and say, when Mr. Bucklew was lying in a supine position for extended periods of time, it creates difficulty for him to breathe?

A Yes. He's going to have more difficulty, absolutely, than somebody else would.

Q Do you know how long it takes to strap him into the gurney? Again, assuming we're having – using a gurney?

A Just strapping him in, I mean, if he's cooperative or if an inmate's cooperative, it shouldn't take more than – again, it depends on how many people are doing it. But if they're – let's say four individuals, I'm just picking four out of a hat because there are four extremities, shouldn't take more than 30 seconds, at most, to actually put those straps on. I – I – I think. I mean, based on what I see in terms of those straps that I've seen from the internet, so . . .

Q After Mr. Bucklew is strapped in, what is your understanding of what happens next?

A My understanding would be that they – an attempt is made to start an intravenous line.

[189] Q And that's what we were just discussing, looking for a good IV line?

A Correct.

Q Do you know if the State of Missouri uses one or two IV lines?

A I believe the protocol uses two. There's a primary and a secondary, I think is the wording that they use. I think they use two.

Q What is the purpose of using two IV lines to your understanding?

A It's basically to have a backup IV. Where if you have a problem with one IV, you can use the other IV.

Q So when there's two syringes – I mean, we – we recall, we've established that there are two syringes containing 50 milliliters of Pentobarbital. And then there's a third syringe of the saline solution; correct?

A That's my understanding, yes.

Q Right. Do all three of those – and not simultaneously of course, but are all three of those syringes injected into the same IV line?

A I do not know. I – I'm – I'd have to review the protocol. I don't remember if they state it goes into the primary line, but I think the saline would go in – I – I – I don't know for sure, but my guess is they all go in through the same line, because if you have the [190] Pentobarbital go in, and then next syringe of Pentobarbital, and then you have the saline – you're using the saline to clear the line, so you'd probably be doing it all through – all through the same IV, is my guess. But I don't know specifically what it states in the protocol and what they do.

Q Well, do you have the open protocol in front of you, which we previously marked as an exhibit?

A I have had it in front of me, and there it is.

Q So looking at section C, under intravenous lines, it says the second sentence [sic], (reading):

> "Both, a primary IV line and a secondary IV line shall be inserted, unless the prisoner's physical condition makes it unduly difficult to insert more than one IV."

Do you see where I was reading?

A Yes.

Q So would you agree that that indicates that it is preferable to have two IV lines?

A Well, I think as I interpret that whole section, there, they – they say that, if there is difficulty, then you would have a central line. And in the secondary line, is the peripheral line. If you read further down.

So I think what they're saying here is, that, you [191] know, if there's difficulty placing the IV, and you get one IV in, a peripheral IV in, then the – the other IV can be a central line. But the central line in that case becomes the primary IV line, because it says the secondary – secondary IV line is the peripheral line.

So I think what they're essentially saying, here, is that, if we have a central line, that's the one we're going to use because that's going to be the most reliable one.

Q Well, all it says is medical – you're looking at the next sentence. (Reading):

> "Medical personnel may insert the primary IV line as a peripheral line or as a central venous line."

A Correct.

Q So one or the other.

And then the secondary IV line is a peripheral line?

A Correct.

Q That's the final sentence?

A Yes.

Q So it still contemplates two IV lines?

A Yes. That's correct, yes.

Q Right.

A I'm sorry.

[192] Q So my question is, why would you want to have two IV lines?

A If there was a – if there was a problem with one of the intravenous lines, then you could use – and when I say "problem," if you started to make an injection, it could be – let's see, hold on just a moment.

So under C2 it says, (reading):

> "A sufficient quantity of saline solution shall be injected to confirm that the IV lines have been properly inserted and that the lines are not obstructed."

So, you know, if they had – if they were concerned about the – the flow of fluid through that, let's say, the peripheral – through one of the lines on the peripheral lines, then, you know, obviously, they would use the central line in that case. I guess. I mean, that's – I – I – I'm not trying to provide any – any input to anybody about how to manage this, but I'm just trying to interpret what they – what they wrote here, but . . .

Q Do you think it's more or less likely than Mr. Bucklew – strike that.

Do you think taking into consideration the state of Mr. Bucklew's – or the access to Mr. Bucklew's veins, [193] that it's less likely the state would be able to identify two IV lines?

A It'd be less likely, yes, to identify two peripheral IVs. Yes. I think that's true.

Q When you say "two peripheral IVs," you mean that the state would then need to identify a peripheral IV as well as the central IV line?

A That scenario would be more likely with someone like Mr. Bucklew, compared to an individual – an

individual who had no problems with their with their – with their veins. Now, when I say more likely, I – I can't really give you number on that.

So – but I would say in my experience, yeah, you'd be more likely to have problems getting two IVs – peripheral IVs in someone like him than, you know, someone else.

Q Once the IV lines are inserted into Mr. Bucklew's vein or veins, depending on how many IV lines the state is able to identify, do you know where the Pentobarbital is administered from?

A In – in – in – in the tubing, itself.

Q Into the tubing, itself.

A No, I don't. I mean, there's most intravenous lines have what are called ports, and sometimes – usually, there are several ports in the line, and one's [194] going to be close – usually, it's close to the IV insertion site and there's going to be another one farther up. I have no idea where they inject it.

Q So do you have any idea how long it would take for the Pentobarbital to run the length of the IV line into Rusty's vein?

A So those – the volume of that tubing is probably, even at the most distal part, you know, maybe it's – I don't know, could be 5 MLs, I'm not – I – actually, I should probably know that, but I can't remember off the top of my head, it depends upon the size of the IV tubing, but it's probably going to be a relatively small amount.

So I don't know the answer to your question of how much – how much dead space, is what we call that, in the line because I don't know where the ports are.

Q Right. So you don't know the length of the tubing?

A Yeah. I do not know that.

Q Right. And we've always talked about, you've made an assumption in terms of the speed in which the Pentobarbital is run into Mr. Bucklew's vein; is that right?

A I did. But I do believe that it's important to point out that the, you know, when you give a drug, [195] especially when you've given a large bolus of the drug, so you have this tubing going along and it goes into the arm, so all of a sudden you start to inject the drugs and you have sort of this bolus of the drug moving along, and so the injection has started, but it actually hasn't gone into the – into the patient or, in this case, the inmate.

So it might take five seconds, let's say, for that Pentobarbital to start actually getting into the vein. So if you were to say to me, "Precisely, when did the Pentobarbital actually enter into the inmate?" If I started the injection at 12:00-noon and zero seconds, and maybe it actually didn't enter the inmate until 12:00-noon and five seconds, because it took five seconds for me to put sufficient volume in to get it into him. So – but we're not talking about minutes. I mean, again, I don't know how fast the infusion –

Q That's all I'm asking.

A Yeah.

Q If you know, one way or the other.

A I don't, sorry.

Q Yeah. Okay.

Once the Pentobarbital starts running into Mr. Bucklew's veins, explain to me what happens.

A The drug will go through the – the veins and – and get into the larger veins – let's say that he [196] has peripheral IV – enter the larger veins of his arm, and go in, through the subclavian vein, and then it would go into the superior vena cava and then it goes into the heart. And then it could go through the right side of the heart, through the lungs, and then back into the left side of the heart, and then it's ejected by the left side of the heart, the ventricle, and it is then distributed to the rest of the body, so it'd go to the brain and other organs. So that's basically how that drug would be –

Q Uh-huh.

A – distributed.

Q At some point after the Pentobarbital is running through Mr. Bucklew's veins, it's your opinion that he's rendered unconscious?

A Yes. That's correct.

Q And it's your opinion that this would occur – approximately 20 to 30 seconds from when?

A It would be about 20 to 30 seconds after the – my guess would be, the first 10CCs of the drug actually entered into his venous system. So from when it actually gets injected into the – into the vein, this's [sic] – that's my estimate.

Q Do you have an estimate of how long it would take for Mr. Bucklew to die from the point that the Pentobarbital enters his veins?

[197] A My – my estimate is – is basically around 8, 9, or 10 minutes. Because as I said to you earlier,

one of the things that I did look at, were some of the press reports of – of some of these executions, and they almost always give the time, between the injection and when the inmate is declared dead.

Q And you said approximately eight to ten minutes?

A Yeah.

Q Okay.

A I think that's what most of the reports said.

And my understanding is that's public information. I mean, obviously, it is now, because it's in these news reports. So I'm assuming that that's accurate.

Q We've talked a little bit about this already: But it's your opinion that, once Mr. Bucklew becomes or an inmate becomes unconscious, that inmate no longer experiences pain and suffering; is that correct?

A That is my opinion, yes.

Q Okay. And just to make sure I have a good understanding, what is your basis for that opinion?

A So Pentobarbital is an anesthetic that is capable of producing deep unconsciousness and coma, as we discussed before. And you can actually do surgery with Pentobarbital. And with – just like with any – any other anesthetic, patients do not report pain and [198] suffering during – when they have a normal, properly administered anesthetic. They don't report pain and suffering after the operation – that they experienced during the operation.

Obviously, they may have pain and suffering afterwards, because they have an incision, and they're painful from that. But during the operation, itself, they don't report anything like that because they're

unconscious. So that is the important thing to consider about, would somebody be suffering during the effects of Pentobarbital? And I think that's the primary thing that I'm looking at.

The other thing to consider is that the Pentobarbital is being given in a very large dose, so you're going to achieve that endpoint more quickly. The third thing to remember is that, in addition to the anesthetic effect of the Pentobarbital, you're going to get essentially cardiovascular collapse. It's my – I don't – I don't, I mean, just based on the action of a drug and what we see with – with Thiopental, for example, you're going to get a really low blood pressure. And then as I described in my report, hypoxia, and then the heart starts to slow. So, I don't see how you could – how anybody could – could have suffering and pain during that process.

[199] I mean, once you become unconscious, the rest of it is downhill, I mean, I'm not trying to make light of it, but that's basically everything's going down hill. The blood pressures going down, the neurofunction is going down, and it's irretrievable or just irreversible, I should say.

Q What is your –

A It's irreversible. You couldn't – I just don't think it'd be possible to resuscitate somebody out of that – out of 5 grams of Pentobarbital.

Q Understood. But isn't that a separate question from whether they're experiencing pain before they enter – declared dead?

A Yeah. Maybe you're right, maybe I went off a little bit more information than was needed to answer the question, but I'm kind of looking at the overall

process. And I think, maybe, part of that is – is – is – is informed by Dr. Zivot's opinion, which I think – again, I'm sort of paraphrasing, but – or interpreting what he's saying is that, somehow Mr. Bucklew is going to be in this sort of zone where he's semi-awake and semiconscious. And he talks about – he, being Zivot – that, this could be anywhere from, you know, sev- – it could be anywhere from several minutes, because Missouri has it in their protocol that they're going to have five – they're going to give [200] another 5 grams in their protocol if they need to, but my question really about that is, how – how – well, how can you explain or support that statement? How – how is Pentobarbital and the doses given going to keep an innate [sic] in this sort of semi-awake zone for several minutes?

It just – if you look at the action of the drug, if you look at the kinetics of the drug, if you look at how it affects the brain and its – and the cardiovascular system, I just don't see how you can make that statement.

I mean, this – this drug will cause a rapid onset of unconsciousness, 20 to 30 seconds is my opinion, could it be a minute? Maybe. And then it's going to – it's going to – just going to be a deepening and deepening unconsciousness, to the point of coma and brain – or electrical silence. Cardiovascular collapse.

I don't see how he, Dr. Zivot, can put together this picture, where it's going to be this prolonged period, where the inmate is going to be in this state of semiconsciousness and – and experiencing these symptoms of pain, and suffering, and choking. I just cannot piece it together with the information that I've been provided and the information that I pulled from these articles and so forth.

Q Is there any medical equipment that could be used to determine whether or not the individual is experiencing [201] pain?

A Not in the current clinical use. There have been attempts in the past to try to determine whether people are experience – if anesthetized individuals are responding to a noxious stimulus in the way that would indicate to you – to the inclination that they are – well, they're not – not really, they're experiencing pain, but they are – but that the body is responding physiologically to the – to that stimulus.

We don't have that right now, I think there is some companies working on it, but we don't currently have that. As far as I know.

Q Could Mr. Bucklew experience feelings of suffocation and choking after the administration of Pentobarbital?

A Only during the period, where he's still conscious. But after he becomes unconscious, no. I mean, he, you know, once that injection starts, as – as I've already said and you've asked about, it does take some time for the patient – for the inmate to become unconscious, and I'm seeing it's 20 to 30 seconds after that first, say, dose of 500 milligrams or so, thereabouts, gets into the – into the inmate. But after that, no, he's – he's not going to experience any sensation of suffocation or choking. It's my opinion.

[202] Q From the point of unconsciousness? Therefore –

A Correct. Once he becomes unconscious.

Q What if Mr. Bucklew started bleeding from his hemangioma?

A He – he would not – if he's unconscious, he would not experience suffering from pain from that bleeding, no.

Q Could he start bleeding from the mouth, where the hemangioma's located?

A He could. But if he was unconscious, he wouldn't – in my opinion, he wouldn't be suffering or be feeling it.

Q How do you know that he would not be suffering or experiencing it?

A Because he's unconscious, so you don't – as I – as I mentioned earlier, you – in – in my opinion, suffering is a something [sic] that you have as a conscious experience. You don't have suffering and pain as a [sic] unconscious experience.

But I've also been very clear that you can certainly have physiological responses to various stimulation – various stimuli of when you're unconscious. So as an example, brain-dead humans, if you do – obviously, brain-dead humans are – are organ donors. And by definition, you wouldn't necessarily need to give an [203] anesthetic because they're brain-dead. But in fact, you do need to give some anesthesias and some drugs because they have physiological responses to the noxious stimulation to the surgery, their blood pressure goes up, their heart rate goes up, that's a – a reflex that they – that the brain-dead humans retain.

So yes, you can have these physiological responses to these different types of stimulation, but that doesn't mean that they're suffering or have pain. I mean, obviously, example of the brain-dead, but by definition, they can't because they're brain-dead.

Q So what – what information are you relying upon?

A For what?

Q To – to say what you just asserted.

A I – based on my clinical experience, because I have provided care for brain-dead humans, who are organ donors. And then also, based on my review of literature and some of the research that I have done over the years. Some of my research is related to where the anesthetics work in the body, so that was part of my – my review of that area.

Q Are you familiar with anesthesia awareness?

A Yes.

Q What is it?

A That's a term that usually is used to describe [204] somebody who is aware, awake, conscious during a surgical procedure, usually because of insufficient anesthesia that was provided, that – sometimes it's because it's – it's an error or an oversight, sometimes it's because we just can't give enough anesthetic to a person, so if it's a patient that's been in trauma and they've lost a lot of blood, then you can't, you know, you can't provide anesthesia to them – or as much anesthesia to them. And in my own practice, although, as I've mentioned to you, I don't practice clinically anymore, but in some trauma patients, there have been times where I've whispered in their ears during surgery, and I've said to them, "Mr. Jones, I know that you might be awake, and I know that you might be experiencing this, but I cannot give you much anesthesia because you are so sick right now. And I'm going to do the best that I can."

And I did that and I taught residents to do that, because when you – when you review the literature on this, patients who have suffered anesthesia awareness said – a lot of them just said, "I wish they knew that I was awake," and this is one way – you don't know for sure that they're awake, and we have monitors now that – not entirely accurate, but, you don't know whether they're awake or not. So you can do it to everybody and – and hopefully they are not awake, but that was my practice at [205] least. So yes, I'm very familiar with anesthesia awareness.

Q Is it possible that Mr. Bucklew could experience anesthesia awareness? Taking into consideration, of course, that he would not be alive at the end of the experience to recount it?

A I don't think that's a possibility. If something wrong happened with the administration of the drug, and as we already discussed, I do not, especially with the dose that is used, I do not think that he would experience anesthesia awareness, no.

Q You talked about, I think there was three end goals in the context of anesthesia?

A Yes.

Q One of them was amnesia?

A Yes.

Q Do I have that right?

And you – there was an amnesia agent. What is the purpose of the amnesia agent?

A The purpose is to block memory. And an anesthetic, by definition – and when I say "an anesthetic," I mean, one drug that produces the state of general anesthesia. So that drug has to have – has to be

capable of producing those three end points to be called a general anesthetic, and that's my medical and scientific [206] opinion based on many years of thinking about this and doing research on that. As opposed to a drug that may cause amnesia, but it wouldn't produce necessarily the other end points of –

Q I – I – I understand.

A Okay.

Q But why do you want there to be an amnesia component to the anesthetic?

A Because patients don't want to remember their surgery.

Q Why do they not want to remember their surgery?

A Because it would be an unpleasant experience.

Q Because there would be some sort of suffering or some sort of painful –

A That's – that's true.

Q – component to it?

A Yeah.

Q So how do you – so if you want to suppress that by making it so they can't remember, so doesn't that suggest that there is, in fact, some pain and suffering while the patient is under an anesthetic?

A No, it doesn't. You're – you're trying there – there would be pain and suffering if they were awake. But you're giving them a drug that makes them not awake and – and removes that –

[207] Q But also a drug that helps them forget it.

A That is – that is – that is true. Yes, it does because – because the – let's see – so not, you know, we wish you could do this 100 percent of the time, but some patients, of course, we have difficulty with. And the trauma patient, I'm going to, again, give the example. You know, we have some choices, I guess, and I'm not saying necessarily in a clinical sense, but just in terms of how these drugs work and why they're chosen, but, you know, I guess – I guess the – the – the first goal would be: I don't want the patients to – to remember this. I mean, there may be patients that are, quote, "awake," but I don't want them to remember that –

Q Okay.

A – part.

Q Why do you not want the patient to remember it?

A Because that's – who would want to remember their surgery? Or their – that – that experience. I mean, that's – that's the first –

Q And my follow-up question to that was, is it because there's a pain and – component to the procedure?

A Yes. Absolutely.

Q Okay.

A Absolutely.

Q So why – how do you reconcile that with your [208] opinion that somebody who is unconscious does not experience any pain and suffering?

A Because as – yeah, we're not – we're sort of going in circles, here, on this. I can tell.

As you give an anesthetic, one of the first – so of the three components that I described, blocking memory formation is one of the first ones to occur. And then very soon after, you – patients become unconscious. Very soon after. But they're very close.

And then farther [sic], higher doses, you finally block the movement response. So if – if – if I am saying to myself, well, all I want to do is, I – I just want to block the memory, well, unfortunately, our drugs are not – the drugs that we use do not provide me much wiggle room in that regard. So that is, if I provide just enough to block memory, then [sic] may not be enough to – to produce unconsciousness. And I want to get past that. So I have to give a larger dose.

I'm not sure I have answered your question, but pain, I – I – I don't deny the fact, and I admit it freely, that pain and suffering can occur in awake individuals. No doubt about it. And that could be pain and suffering from surgery, it could be pain and suffering from other experiences. Whatever.

But in – on my – in my sort of opinion, as I'm [209] a scientist and a physician, pain and suffering are words that we use to describe experiences that awake individuals have relative to these different types of situations or stimuli. So once somebody becomes unconscious, I don't consider them to be in the situation where they are – or a state where they can have pain and suffering because you have to be awake in order to have that. I can't – I'm not sure I can make it any more clear to you.

Q So once – you're – you're assuming entirely that a patient – or, in this context, the inmate is unconscious?

A (Inaudible response.)

Q So when we're asking specifically regarding any pain and suffering that an inmate may experience during the execution process, as soon as the patient becomes unconscious, the period thereafter is irrelevant.

Is that your opinion?

A That is my opinion, yes.

Q So the length of the execution process, the endpoint being when the inmate is declared dead, is a moot question – or moot point for you; is that right?

A As long as you're maintaining the unconscious in a continuous basis, which, they are, based on my understanding of, again, how the drug works and how, you know, the timing and all that, yes.

[210] Q So if Mr. Bucklew's hemangiomas continue to bleed when he was lying in the supine or whatever position he may be in – as long as he's – and blood is coming out of his mouth, as long as he is unconscious, he's not experiencing any pain or suffering in your opinion?

A That is correct.

Q And is it your opinion that as a medical fact, he would not be choking or he could not suffocate – experience suffocation because he is unconscious at that point?

A That is correct.

Q And is this all based on the assumption that Mr. Bucklew is, in fact, what you're define- – on what you're defining the far end of the unconsciousness spectrum?

A That is correct. And again, I base this opinion on – I mean, we're – I – I realize, we're kind of focusing

on – and as we should – on this particular inmate and the issues around choking and sensation. But remember, Pentobarbital is an anesthetic. And what kind of procedures can we do on patients with an anesthetic? I'll use myself on the example: I had heart surgery. They split my chest open, spread my chest, replaced my heart valve. Okay? Patients have had abdominal surgery where their incision, from stern to stern, for trauma [211] patients, from here to here. In orthopedic surgeries. These types of procedures that go on for hours, are infinitely – maybe that's little bit of a hyperbole – but are much more capable of inducing suffering and pain than, you know, the choking and gasping and so forth sensations that we are discussing here.

And why are we able to do those types of procedures? Because this drug, like many of the other general anesthetic drugs, they're anesthetics. So if we're capable of doing those types of procedures on individuals, and I think that – that the consensus is that those individuals are not suffering or having pain during those procedures, in the sense that we're talking about, which is that they're awake, then yeah, I think that you're – once this Pentobarbital begins to occur, choking or the blood in the airway, that kind of thing, it's not that – I mean, it's stimulating, we all have experienced stuff in our airway, but it's not stimulating to the extent that these other procedures are. And, again, large dose of an anesthetic, I just – it's – I don't see it happening.

Q Do you agree that any length of any time in which an individual is choking is painful?

A If they're awake, would – yes. They would be in pain or – or suffering. I'm not sure, again, we've [212]

already talked about this, I'm not sure pain is the right word, but they would be suffering.

Q Do you agree Mr. Bucklew, as a result of his condition being cavernous hemangioma, the difficulty or the challenge in accessing his IV lines, the uncomfort – or discomfort he experiences when lying in a supine position, again, assuming he would be in the supine position, do you agree that Mr. Bucklew is more likely to experience a more compacted airway during the execution process?

A More likely compared to what? Just his normal state? Or just a normal individual?

Q Either one. Certainly his –

A Yeah.

Q His –

A It's more likely – I think it's more likely that he would have those symptoms compared to a normal individual, because he already has those symptoms. And lying flat is more of problem for him, and – and he says that and I don't disagree with that. Now, can he tolerate – as I said earlier, can he tolerate that? Yes, he has been able to do that.

Q But lying in a supine position for an extended period of time would introduce additional stress or difficulty in his ability to breathe. Do you agree with [213] that?

A Yes. That would be increasing his risk for that or – or that possibility, yes.

Q And the challenge in finding an IV line, would introduce – has a potential to introduce additional stress into Mr. Bucklew as well?

A Yes. I would agree with that.

Q And that additional stress has the potential to make it even more difficult for Mr. Bucklew to breathe?

A Yes. That could happen. Yes, I agree with that.

Q And as a result of these factors that we've discussed, it's possible Mr. Bucklew could experience a sensation of choking or suffocation?

A While he was awake, yes, that would be – that would be possible.

Q So there's an increased risk of pain and suffering that you acknowledge exists up until the point of unconsciousness. Is that your opinion?

A I would agree with that. So – and you – you're probably not going to be willing to – to – to assign a numerical value to that, but – because you're just saying increased risk, and so increased risk would be – mean, going from 1 in 1,000 to 1 in 100 chance. I don't know what the number would be, but just because it's increased, doesn't mean it's substantial or likely.

[214] Q Well, Mr. Bucklew has an increased risk of this, certainly in comparison to other individuals who do not suffer from cavernous hemangioma?

A That is true, yes. He has increased risk compared to a normal individuals [sic].

Q And increased risk compared to individuals who don't have a Mallampati 4 airway?

A Yes. That's true.

Q If you were to able to determine that it takes significantly longer than 20 to 30 seconds for Mr.

Bucklew to become unconscious from the administration of Pentobarbital, would that affect the opinions you've rendered in this case?

A I don't think so. I would say however, that – so if – if it took longer, than 20 to 30 seconds, it would certainly increase the amount of time that he – there is a potential for him to – to have, you know, the sensations of choking and so forth that he described.

But I have to leave it to the Court to decide whether that's a substantial – substantial risk or not, or an increase in the risk, I just don't know. I don't have any – I can't really give you an opinion about that, because I don't know what that – from I guess a legal perspective, and I know that's a term that's used, I don't – I'm not sure if that's substantial or not. I [215] really don't.

Q A substantial amount . . .

A Of risk. That it would be a substantial increase in the risk for him or a substantial risk for him, compared to, you know, if it went – if, instead of it taking 20 to 30 seconds, it took two minutes, is that a substantial risk or an increase? I don't know. Because a [sic] substantial is a – is a term that – that's open to interpretation.

Q Right. And – and – and maybe I should rephrase the question, so we can move away from the substantial risk. But if it appeared, in fact, was two minutes as opposed to 20 to 30 seconds, then that period of time in which Mr. Bucklew would be experiencing suffocation and/or choking?

A Well, that risk would be there. But you're – I think you're assuming that he — he will have, you know, if he does have choking sensations as the drug

is being administered, and it takes two minutes for the drug to work, then yeah, I mean, it's going to be two minutes instead of the 20 to 30 seconds that I described.

Q Uh-huh. Right. And I'm not asking you to make a legal determination –

A Uh-huh.

Q – of 20 to 30 seconds versus two minutes –

[216] A Yeah.

Q – in terms of what is an acceptable level of risk?

A Right.

Q My question is more focused on your medical assessment. In terms of his – during that additional minute-and-a-half or two minutes, would Mr. Bucklew be experiencing or there be an increased likelihood that Mr. Bucklew would be experiencing suffocation or choking?

A There would be an increased likelihood because of the reasons that I've already provided to you: Because he already has those symptoms, and, you know, we're going to – if you're going to make it longer then there's an increased risk just because of the length.

Q I believe you stated in your report that if Mr. Bucklew started bleeding from his hemangioma, he would not notice; is that right?

A If he was unconscious.

Q Right.

A Yes.

Q So again, we're assuming he's unconscious.

A Yes. Right.

Q Is it possible that he could bleed to an extent that it would be coming out of his orifices?

A Yes, that is possible.

[217] Q Are you aware that Mr. Bucklew takes certain nervous system depressants?

A I – in review – yes, in review of his records, I – I saw that he is taking several different types of CNS drugs. Although, quite frankly, off the top of my head, I know that they've changed over time so I don't know specifically what he's taking right now, as of today.

Q What were the drugs, as of the time – or what drugs are you familiar with that he's take [sic] in the past?

A I have to look at the medical records, I don't recall specifically off the top of my head.

Q Does Clonazepam sound familiar to you?

A That sounds like one of them, yes.

Q What about Tramadol?

A I think he took that, but I – again, I –

Q Right. Sorry. I'm not trying –

A I know.

Q – give you a memory test.

A I just don't remember exactly what drugs he's been on in the past, and that's now off of, and what he's on now, so . . .

Q Is it your opinion that – again, assuming Mr. Bucklew is taking these depressants, that any interaction between these depressants and the Pentobarbital would be inconsequential?

[218] A Yes. And that's based on my – you know, the dose that's used, it's just going to be overwhelming. The, you know, the dose is overwhelming compared to any effects that they might have between the – those drugs and the Pentobarbital.

Q What effects could the drugs have at a lower dosage of Pentobarbital?

A So basically, you could have what are called additive or synergistic effects where the two drug [sic] act together to produce more of an effect than the drugs acting separately.

Q Uh-huh.

A Or they could just be additive, where they just add – you know, work together in the same amount, so they produce more unconsciousness or whatever effect that you're looking at. Those – those are some of the interactions that you would have.

I know that – well, that – that's just, you know, that's the main – I think the main effect. Which, again, when I – in my report, I said basically, it's – it's essentially going to be an additive effect anyway. I mean, you're using such a large dose that it's not – it's not important. It's irrelevant more or less.

Q Can you turn to Paragraph 14 of your supplemental report.

[219] A Uh-huh.

Q And I believe you state here that Pentobarbital is an anesthetic?

A Yes.

Q And by definition, anesthetics prevent awakening from stimuli including airway obstruction?

A Yes.

Q So by medical definition, Mr. Bucklew, if he was starting to choke, would – that would not inhibit him from succumbing to the effects of the Pentobarbital?

A No. Not in – not in this – not in the dose of that's being used. So if – if you could give a dose of Pentobarbital or whatever anesthetic you're using, and you could get into that fine, fine line, that level where, you know, somebody would respond to a type of stimulus, such as airway obstruction, then, yes, that – that type of stimulus could wake somebody up. If you're at that very, very narrow window of – of concentrations.

But that's a very low concentration of the drug, and – and, of course, the Pentobarbital, in this setting, is at a much higher level. So they're not in that period for more than probably a second or two is my guess.

Q Could – if a patient –

A Or a couple – you know, maybe more than that, maybe ten seconds.

[220] Q If an inmate is experiencing suffocation and/or choking, could it affect the distribution of the Pentobarbital?

A No. No. No. No. No. No. It wouldn't.

Q What if the suffocation or the choking was to such an extent that the inmate started convulsing?

A Convulsions, I don't know why you want to use that term, because you're not going to get convulsions in this type of setting because Pentobarbital is one of the drugs that you would use to prevent convulsions and so maybe you can clarify about why you think obstruction would cause convulsions.

Q Well, if the patient – excuse me. If the inmate is experiencing some sort of a choking reaction or a gasping for air before the Pentobarbital has presumably taken full effect, as you've defined it, could that lead into some physical reaction or physical movement of the body?

A It could, but that's not what convulsion is. We don't use that term for that type of movement.

Q Maybe I was using that imprecisely.

A That's why I got thrown off base by your –

Q Well, that's why you're the expert, to keep me in line. I appreciate that.

So could the physical reaction, through the [221] experience of choking, affect the distribution of the Pentobarbital?

A Well, I guess if the inmate was moving to sufficiently where it interfered with the flow of the IV, right? So, you know, I don't know where these straps are located, and it's obviously relative to where the IV is located, but I suppose if the individual was moving around or – or – or basically pushing against the – the strap where an IV was placed, then you could obstruct the flow of the fluid going through that. So that would be – that would affect the distribution of the drug.

Q Is it possible that it could dislodge the IV?

A Yeah. I mean, if somebody's moving around, absolutely. If it's – especially if it's a tenuous IV, so...

Q And then, of course, if the IV is dislodged –

(Whereupon there was a telephonic interruption.)

MR. FOGEL: Pardon me. If I'm not – sorry.

THE WITNESS: It's okay.

BY MR. FOGEL:

Q If the IV is dislodged, that would necessarily impact the distribution of the Pentobarbital?

A That is correct.

Q Is the anesthetic the same thing as an – and I'm probably going to mispronounce this – anesthesia?

[222] A No.

Q What is anesthesia?

A So anesthesia is a term that would be used to describe the – the – the state or condition that is produced by an anesthetic. So for example, Pentobarbital is an anesthetic, it produces anesthesia. And what is anesthesia? Again, going back to my three end points, its immobility, it's unconsciousness, it's amnesia. The ability to – to – to do surgery procedures and have those end points, that's sort of what anesthesia would be.

Q Are you familiar with analgesics?

A Analgesics.

Q Analgesics, thank you.

And those are designed to prevent pain, I think we talked about earlier?

A That is correct.

Q And we've also talked about that anesthesia is also designed to cause amnesia.

Do I have that right?

A That is correct.

Q And it's your opinion that Pentobarbital would achieve all of these results? Unconsciousness, lack of pain reception, and amnesia?

A And immobility.

Q And immobility.

[223] A Yes.

Q And how do you know this?

A The Pentobarbital would do that?

Q Uh-huh.

A Because Pentobarbital is an anesthetic, and you can give it in sufficient doses to produce that type of picture or that – that state. Pentobarbital's used – I don't think it's used – as I said earlier, it's not used at all, clinically, for that particular, you know, in that setting. It could be used in animal studies or animal experiments or animal surgery; although, even now, veterinarians don't do it because it's such a long-action drug. At the dose that you need to give, it would last too long.

Q Understood.

A Yeah.

Q Understood.

So to what extent did you rely upon Mr. Bucklew's medical – excuse me, the records from his prior surgeries from 2000 and 2003?

A I relied – I think it was an important part of my analysis because one of the issues that came up initially, and maybe it's still – it will be a factor, I don't know, but it has to do with distribution of the drug. That – that there is a contention that this [224] hemangioma would affect the distribution of the Pentobarbital. And so my – the process that I went I through to refute that is that well, he had that hemangioma back in 2000 and 2003, and it was a low-

flow hemangioma, and he reacted normally to the anesthetics. And that is – the that the [sic] documentation was that he was unconscious, he did surgery, he reacted normally. So I think that was an important piece of information to show that he doesn't rea- – he would not react abnormally to anesthetics.

Q Did you take into consideration the fact that those procedures were 13 and 17 years, respectively – 17 – 13 and 17 years ago, respectively?

A I did and I thought about, well, how – how much larger has the hemangioma gotten, has it changed its characteristics? And it has not, based on my review of his medical records. So, for example, the hemangioma was slightly smaller when comparing 2010 to 20- – 17 – '16, slightly smaller. The – he had an angiogram done in – I'd have to review the records, I forget exactly when the angiogram was done, but it was done at some point, and it showed that it was a low-flow hemangioma, so it showed there wasn't much blood flow it to.

The image study that he had done in 2016 used a – what's called CTA or computer – computer demographic [225] angiography, I think I got that right, I may have it a little bit off, but CFT for short. They can use that technique to look at the blood flow of the hemangioma, there was low blood flow to the hemangioma. So the characteristics of that hemangioma, in that regard, have not changed over the years, so I don't see how it could have . . .

Q But aren't those procedures different because they were affirmatively trying to control for Mr. Bucklew's blocked airway? I – I – I can't recall, perhaps, if there was a kaleidoscope or some sort of tool that was used to control for his breathing?

A During?

Q The 2000 and 2003 procedures.

A No, I don't think so. I think they just used direct laryngoscopy.

Q Well, they used some sort of device to control for his blocked airway.

A But it's just the device that they normally use.

Q But that device would not be used in the context of an execution.

A There would be no reason to do so.

Q Right. So aren't there fundamental differences between how Mr. Bucklew reacted during those procedures in 2000 and 2003, as he would during an execution?

[226] A No, I think you're – you – you, and perhaps, Dr. Zivot, are – are – are conflating and – and putting together the issues around the airway management with his reaction to the anesthetic drugs, themselves.

Q And you're saying that he would react the same?

A Correct. Because as you well know, Dr. Zivot and – and Dr. Wippold, and Jamroz, but primarily Dr. Zivot said, at least in some of the initial reports that I read, that there would be an abnormal distribution of the drug. And that's just not true. And it doesn't make any sense to me in terms of the anatomy or physiology of this hemangioma.

Based on my understanding of how these hemangiomas are – their structure, and just to prove my point, the inmate had surgeries in 2000 and 2003, when the hemangioma was quite large. I don't know what it was compared to what it is now, but it was large enough

that he was having treatment for it, and in – reacted normally. So that is separate from the airway issue.

Q Right. Okay. And so that's the distinction, I think we're – we're just talking past each other. His procedures in 2000 and 2003 do not tell you anything in terms of how he may or may not have experienced feelings of suffocation or be choking during an execution process?

A I wouldn't say they don't tell me anything, [227] because he did have a large hemangioma then. Unfortunately, I don't know how large compared to what size it is now. But it was described in the records as being, again, large. I mean, that's sort of one of the terms that was used.

Q Right. But they controlled for his airway –

A That's correct.

Q – during the course of the procedures, which, of course, they would not do during the course of the execution?

A That is – that is correct. But it's – but it's controlling – they were controlling for his airway when he was unconscious, and, again, it just doesn't matter to me what's happening because he's unconscious in terms of the lethal injection process.

Q One of your conclusions –

THE REPORTER: Are you moving on to a new subject? I need a break.

MR. FOGEL: Okay.

(Whereupon there was a break in the proceedings.)

BY MR FOGEL:

Q Dr. Antognini, we were talking about the fact that choking may have under [sic] the distribution of the Pentobarbital. What about the bleeding from Mr. Bucklew's hemangiomas? Could that have an effect?

[228] A No, I don't think so.

Q Even if the blood with was coming out of his orifices?

A No. It wouldn't affect the circulation of the drug. Well, so I'm – I'm going to make sure, it has been – it's getting – been a long day, I may not be as focused as I should be. Can you repeat the question.

(Whereupon the record was read.)

THE WITNESS: Could the bleeding have an effect on the distribution of the drug, was the question –

BY MR. FOGEL:

Q Correct.

A – I believe.

Okay. No. If – I mean, if he had – if somebody had massive bleeding from something, and by massive, I mean, we're talking about hundreds of MLs or thousands of MLs, that kind of setting, that of course affects the distribution of drugs. Because it's distributed by the bloodstream, so if you're bleeding – but even bleeding from a hemangioma of this type, you know, wouldn't affect that because it's a low-flow hemangioma. The blood flow to it is low, relatively speaking. So you're not – so there's not going to be a lot of blood actually going through that. Of course, it's in a sensitive area, I admit and agree with Dr. Zivot that [229] in the awake condition, Bucklew could have

choking conditions from the bleeding, but it's not enough to affect distribution of the drug.

I'm trying to think of a scenario whether either the choking sensations or the bleeding, itself – I mean, there is a – and I'm, you know, I don't mind saying this, you know, you might think it's pertinent or not, I mean, it's not because, again, we're talking about a massive dose of drug. But if somebody is choking, it could affect the mechanics of blood flow through the – through the thorax, basically. But that's, again, sort of small compared to the overwhelming effect of it in terms of the dose of the drug that's being given.

And the main thing that's going to affect distribution of this drug, in my opinion, is the rapid onset of hypo- – severe hypotension. And that doesn't actually help in your case in any way whatsoever. Because when that blood pressure drops from that Pentobarbital, it – the one thing that – that keeps – that brings the blood concentration down of a drug – I shouldn't say the one thing – but the main thing in this particular time period, the one thing that brings the concentration of the drug down, is that it gets redistributed to other organs, so the brain is what we call a high-flow organ, the heart is a high-flow organ, it gets a lot of blood flow.

[230] So the drug starts to go there first, but then, you know, there's blood flow to other tissues, so the drug gets – we call it redistributed to other tissues. But that's not going to happen in this setting, because that severe hypotension that happens, the circulation is essentially going down, close to zero, and you're not going to redistribute that drug. So the drug that's in the brain now, normally if it was a low dose, it would be sort of washed away, and it's not going to happen in

this setting. So it goes into the brain, and it stays there.

Q So going back to my original question –

A Yeah.

Q – which is just –

A Yes. Yes.

Q – regarding the blood – the bleeding from Mr. Bucklew's hemangioma, which you've acknowledged is a possibility that could happen as a result of the execution, the answer to my question is, you do not think it could affect distribution of the Pentobarbital?

A Right. Correct.

Q You've also rendered an opinion regarding lethal gas?

A I did say something about that, yes.

Q And it's – I'll read it directly from your opening report. And it's at paragraph 26.

[231] A Yes, I see it.

Q You said, (reading):

> "The use of lethal gas would not significantly lessen any suffering or be any less painful than lethal injection in this inmate."

Why does lethal gas not hold any advantage compared to lethal injection?

A Well, essentially, because I think that the – I use the term lethal gas but there are several – several types of gases – maybe more than several, there are a lot of types of gases that could be used for – for – to kill somebody, I guess. They're not necessarily ones that will be used or have been used in executions.

You know, the one that comes to mind is cyanide gas, and, you know, I – I don't know if anyone's used nitrogen in an execution, I don't know the answer to that question. I – I think somebody has, some state has done that, but I'm not positive about that. And those have effects that may not be pleasant either, but it would be short-lived, just like it is with the Pentobarbital.

So that's why – I mean, I do – I – I, you know, drew a conclusion and I said I didn't think in my opinion that it would – you know, using gas would not significantly lessen any suffering or be less painful. [232] Because, again, their onset of action is going to be relatively fast, just like Pentobarbital's onset – onset of action. So that's why I – I drew that conclusion.

Q That's it? Simply because it would happen quickly?

A Correct.

Q You think there would be no difference?

A That's –

Q Did you take into consideration what position the individual might be sitting or lying in?

A No. I did not, no.

Q Did you consider the fact that using lethal gas would not require the use of accessing an IV line?

A I did not. I mean, I – obviously, I know that. But I don't think that the – inserting an IV line is, as I said, significantly increasing the – the – the amount of pain.

Q Right. I mean, we've – we've –

A Yeah.

Q – talked plenty –

A Right.

Q – about your opinions –

A Yeah.

Q – and understandings regarding accessing Mr. Bucklew's IV lines.

[233] But what – what are you relying upon, in terms of how a lethal gas execution operates, to form this conclusion?

A Let's see. Again, I – I referred to I believe examples of nitrogen and of cyanide. Because I know – of course, we all know cyanide has been used in the past, that was used in California and elsewhere. I don't know whether other gases that have been used in executions –

Q Sure. Putting aside –

A Okay. I know –

Q Okay. Okay.

A I just – I want you to know I'm trying to answer your question in giving you the background of why it formed my opinion.

So I thought in mind, okay, well, how does cyanide work and how quickly does that work and what kind of suffering may be occurring? And I'm, quite frankly, thinking about, you know, maybe – as I look back in my review of this, at this – at that point, I did probably look at reports of cyanide, you know, using cyanide as a lethal injection, and – and I think that those could be – to – to use a rather – not – maybe not the best term, but it could be kind of messy. In the sense that, you know, inmates can be – can have convulsions from the – from the cyanide, and that might be true for the [234] nitrogen, so I'm – I'm looking at, you know, the –

the pain and suffering that might occur from Pentobarbital compared to what my understanding of lethal gas would be and that's why I formed that opinion.

Q Right. And my – my question is, what informed your understanding of a lethal gas?

A So for the cyanide one, I guess it'd have to be, I might have reviewed – I – I really don't remember. But I'm not trying to be evasive about this.

Q Is there anything in your materials reviewed that you could point to?

A No. I didn't put that in there. No, I did not. Now, as far the nitrogen part, just based on my – my experience, my scientific experience – not the right word. My scientific knowledge of – of using nitrogen, when you go from, you know, air is 80 percent – 79 percent nitrogen. When you go from 79 percent nitrogen, now to 100 percent nitrogen, you know, you quickly achieve hypoxia and somebody would be unconscious very quickly and, you know, it depends on how quickly the gas is introduced and all of that.

So I – again, I'm just saying sort of based on what I know, that's why –

Q And how do you know how quickly a gas is introduced?

[235] A Well, I don't know that. I mean, it could be introduced very slowly and cause a lot of suffering, I guess. You know, you get – you can get suffering from hypoxia, you know, because somebody can be awake and realize that they're not getting enough oxygen. So depending on – on how it's used, you might get more suffering from nitrogen gas than you would have Pentobarbital. Or you might get less suffering, you

know, it depends on how you would use it, I guess. And I'm not making any recommendations to anyone about how –

Q Understood.

A Yeah.

Q I'm just still trying to get at my first question, which is, how you – what you are basing your conclusion on, that lethal gas would cause significantly less – excuse me, strike that.

What you're basing your conclusion on, that the use of lethal gas would not significantly lessen any suffering or be less painful than lethal injection?

A Well, I already said to you, I looked at – my recollection is, I suspect I looked at some information on – on the use of – of cyanide as a lethal gas, and then I just looked at – or had my – my understanding of what happens with hypoxia based on over the years. I mean, obviously, as an anesthesiologist, we're very [236] concerned about hypoxia and we study hypoxia and all of that, and that's how I came to that conclusion. But it's not – I – I will admit that it's not perhaps as well founded as some of my other conclusions.

Q Are you relying upon any information that you were given by the Attorney General's Office –

A No.

Q – in forming that conclusion?

A No.

Q Dr. Antognini, are you being compensated for your time today?

A Yes.

Q Are you being compensated for the time you spent in preparing your reports?

A I am.

Q How much are you being compensated an hour? Do you charge an hourly rate?

A I do. It's – well, for the deposition, I think it's a – it's a flat rate, I can't remember what it was, it's in my – I think it's in my report. I believe, in the first one. I think it's $2,000 for a deposition appearance.

Q It's a flat rate?

A Yeah.

Q Okay.

[237] MR. FOGEL: We don't have anything further at this time.

MR. SPILLANE: All right. I'll try and move quickly.

EXAMINATION

BY MR. SPILLANE:

Q You're a board-certified anesthesiologist; is that right, sir?

A Yes.

Q Do all board-certified anesthesiologists have expertise in setting central lines, such as subclavian or femoral vein lines?

A No. I wouldn't say that all of them do. I would say that – that is part of their training, but if – you know, just because they've trained – been trained to do that, does not mean that they continue to do that in their particular practice, so I wouldn't say that all board-certified anesthesiologists would be experts in . . .

Q Well, I probably asked a bad question. I'll start out with this: Every board-certified anesthesiologist is trained how to do that or he wouldn't be a board-certified anesthesiologist?

A That's correct. That is part – that's a part of training. But, you know, some people, their – their [238] practice may be that they're doing outpatient surgery – or anesthesia for outpatient surgery, so they may not place central lines ever.

Q What type of surgeries does one use a central line?

A It would be heart surgery. It could be somebody who's having a major abdominal surgery. It could be some type of orthopedic procedure, where there's going to be a lot of blood-loss, I guess. Or a spine surgery. And then somebody who's particularly sick, and you can't get – you don't have good IV access, and you wanted to, you know – if you're having problems with that, which we've already discussed, then – then, you know, you would put a – a central line in that kind of patient.

Q When you examined Mr. Bucklew, were you able to physically view his uvula?

A I did see his uvula, just the very top of – of it. But I – I did sort of waffle, whether it was a Mallampati 4 or 3, because I was able to see part of his uvula. And generally speaking, when you have a Mallampati 4, you don't see any of the uvula. But I still have nevertheless called it a 4, because the Mallampati score – and maybe, I mean, I – I think clinicians use that scoring system in maybe not the most consistent way. So for example, if I had somebody who's thin, but just has [239] an abnormal, maybe have [sic] a very small chin or whatever, they may

have a – I look at them and I say, "Oh, they have a Mallampati 3 because I can – I can see just a part of their uvula," but if I have somebody like with this inmate, I mean, it's – it's not just a question of being able to see, I mean, he has a large mass there, I would say maybe sort of maybe fib – fib, I shouldn't say that in a deposition – but I would move more toward saying a Mallampati 4, just so show people, "Hey. This is a potentially difficult airway." Which I don't deny, he's got a, you know, from a clinical perspective, it could be a challenging airway.

So to answer your question, I know it was more – it was a "yes" or "no" question, but I wanted to provide some feedback, I did see part of his uvula.

Q Okay. And – and as I understand it, and correct me if I'm wrong, if you see part of the uvula, it's generally not a 4; is that fair?

A That is – that is correct.

Q Okay.

A But I did not say that in my report.

Q All right. That's what I –

A That was my recollection – yeah, that was my recollection, that I did see part of his uvula.

Q Let me ask you about your conclusion of – on [240] pain and suffering. Those are two different things; is that fair according to your testimony?

MR. FOGEL: Objection.

BY MR. SPILLANE:

Q If you understand my question, you may answer.

A Yeah.

Q And if I stated it wrong, tell me.

A Yeah. I would say that they are two different things. So basically, pain is a – suffering can occur from a variety of different types of situations or – or stimuli, and pain is part of that. Pain, generally speaking, will cause suffering. But you have suffering from some – some – from something else that's not painful. So, you know, with all suffering, we have emotional suffering from things that happen in our family and all of that, but that's different than the suffering that occurs from a painful stimulus.

Q As I understood your testimony on direct, you testified that there would be no pain 20 to 30 seconds after the chemical entered the bloodstream in the IV; is that accurate?

MR. FOGEL: Objection. Misstates the witness's testimony.

BY MR. SPILLANE:

Q You may answer, if I got it right. If not, tell [241] me.

A That is correct. That – that 20 to 30 seconds after the injection started to enter into the – actually into the bloodstream.

Q When you –

MR. FOGEL: Hold – hold – hold on. That's not even close to what you testified about. I mean, fine. I can redirect, but . . .

MR. SPILLANE: The record will reflect.

MR. FOGEL: Fine. That's fine.

THE WITNESS: Well, I don't remember what I said, I mean, we can read it back, I'm happy to – I'm trying to be consistent, but that's –

MR. FOGEL: Understood.

THE WITNESS: Maybe I'm not using the right words.

MR. FOGEL: For 20 to 30 seconds from entering the bloodstream; right? We've been talking about unconscious [sic] the entire day, but it's different. But Mike, go ahead and ask your question.

BY MR. SPILLANE:

Q I asked about pain. You indicated, as I understood your direct testimony, that when the person is unconscious with this dose of Pentobarbital, they would not feel pain.

[242] Did I get that correct?

A That is correct. That is my opinion.

Q So they would not feel pain 20 to 30 seconds after the chemical entered the bloodstream from the IV; is that accurate?

A That is my testimony, yes.

Q Let me ask you a little bit of how you got there. Did you think about blood concentrations when you made that conclusion?

A Yes.

Q Tell me what you thought.

A So I looked at – as I said, I quoted that study in my supplemental report from Ehrnebo. And basically, what they – what he did in that study is, he took humans and he gave 100 milligrams of Pentobarbital

intravenously, and then he measured the blood levels of that drug. And typically, what happens when you do that kind of study, you give the drug, and then you start taking blood samples and measuring the concentration of the Pentobarbital in the blood. And if you look at their – his figure, which is figure 1, I think, it shows a typical high level and then it just starts to fall off and go down and decrease.

So one thing that you can do, as an approximation is, that you can look at those blood levels and say, "Well, if this is the concentration that you achieve with [243] 100 milligrams of Pentobarbital, what concentration would you achieve with 5,000 milligrams?" Which is – is 50 times 100.

Let me make sure I got that right. So as a first approximation, you could just say – look at the peak level there, and say, "All right. Well, if they achieved – or I should say, if you look at the blood levels, if they achieved in that study the average – at six minutes after the injection, the average was about 2.9 micrograms per ML, you just multiply that by 50, and say, "Well, it would be about 145 micrograms per ML at six minutes."

Now, mind you, in that – in that particular study, that was the first time that they had taken a blood sample. If they had taken a blood sample earlier on, it would have been higher because that's what happens with these drugs, their concentration falls off as the blood is redistributed.

Now, I will admit to that – that analysis is an approximation and, in fact, he might – you can go on and claim that there's an error there, that I'm wrong. But I'm not wrong in the direction that would aid you, as I mentioned earlier. Because when you get that

incredibly fast – well, I shouldn't say – when you get that rapid onset of hypotension, sudden or severe hypotension, that [244] drug is not going to redistribute. So if you were to able – if you were able to measure the blood levels on that setting instead of falling off like that study showed, it would – it would be de-elevated. Because the blood pressure is so low that the drug is not being redistributed so the blood levels are staying very high.

Q How many micrograms per milliliter of Pentobarbital in the blood are necessary to achieve the high level of unconsciousness that you spoke about, near comatose?

MR. FOGEL: Object to form.

THE WITNESS: So I – can I answer? Or . . .

BY MR. SPILIANE:

Q If you understand my question, you can.

A So I – I relied on the package insert that has a table in it that I referred to in my report, and they have some drugs listed there. And the first drug listed is Pentobarbital, and there – there're five degrees of depression listed there. And No. 3 says, "Comatose, difficult to arouse, significant depression and respiration." And then No. 4 is, "Compatible with death an [sic] aged or ill persons, and then – or in the presence of obstructed airway." And then No. 5, "The usual lethal level."

So just taking No. 3 as an example of comatose, [245] No. 3 says you need 10 to 15 micrograms per ML; No. 4 is 12 to 25; and No. 5 is 15 to 40. Obviously, they – they've given a range because it's going to be sort of individualized. And at six minutes, based on that study, just looking at the average, it would be about

145 I think is what I calculated. 50 times – about 2.9. So that's ten times the amount that would be needed to achieve level 3.

Now, mind you, that was the concentration that – that – that calculation I just did, of 50 times 2.9, that was the using [sic] the concentration of Pentobarbital at six minutes. But the concentration of Pentobarbital in those individuals at, maybe, one or two minutes was probably, you know, I don't know for sure, I – I did some calculations and I – I can't remember off the top of my head, but it's higher. So if you, now, take that factor of 50 and multiply that, at that point in time, one or two minutes after the drug's been injected, now we're talking – could be 200 or 250 micrograms per Ml. of the Pentobarbital. From this massive dose of the Pentobarbital.

All right. So we're at this very high level, and then, as I said, this sudden and/or this rapid severe hypotension and that drug is not going to get redistributed, so it's not going to fall off. So it [246] starts out very high, and it stays very high. That's why this drug is a lethal – is a lethal agent administered in the way that it does.

Q Is that calculation you just told me about part of the reason you concluded that this person would be deeply unconscious and not feel pain at 20 to 30 seconds?

A That is part of the reason.

Q Tell me the other reasons.

A Well, the hypotension is going to make somebody unconscious. So if you take a normal individual and you make them hypotensive, I mean, they can main– – people can maintain unconsciousness – sorry. People

can maintain consciousness when they're hypotense, you know, when nothing else is being given. But when you give an anesthetic like this and it causes the hypotension, and it's going to act synergistically, because you need blood flow to the brain to be able to maintain consciousness, and this drug – and in addition to the effect it's having on the brain, it's decreasing blood pressure, so the blood flow to the brain is going to be decreased as well. So that's going to exacerbate the problem of maintaining consciousness.

And then finally, the inmate is going to stop breathing, their oxygen source is going to go down and they will become hypoxic, and then you can't maintain [247] consciousness when you're hypoxic, so those factors all combine to produce death, and, you know, unconsciousness and death. So that – that's how I envisioned what was happening in this scenario.

Q I want to clarify something we talked about earlier.

As I understood the earlier testimony, there might be a period when the person had some level of unconsciousness, where he could still experience pain or some level of – perhaps, I'm using the term wrong, semi-unconsciousness, did you reach an opinion of how long that would last?

A I have an opinion about it, I – but it's – it's more based on my – my understanding of the – the drug and the kinetics, and not so much about the, you know, having done a calculation. Because in order to be able to – to answer that question, first, we have to decide, okay. Well, what – what is the period during which –

MR FOGEL; Objection. The question was, did you reach an opinion? I think it's –

MR. SPILLANE: I think he said "yes," and then kind of . . .

THE WITNESS; Okay. Yes, I did reach an – I have reached an opinion.

[248] BY MR. SPILLANE:

Q Okay. Let me ask you this: What – what opinion did you reach?

A That it would occur rapidly. And by rapid, I'm – I'm – I'm going to estimate that it's probably going to be in the range of maybe ten seconds. I mean, that's just a – a – a – I'm – based on my working with these figures and how quickly this drug is getting in and so forth, that this period, as I think Dr. Zivot is describing, where, you know, the – the inmate would be in this period where he would be able to maintain – or sense that choking sensation, it's going to be ten seconds. But I think that's going to be within that 20 to 30 seconds that I described. It's not going to be in addition to the 20 to 30 seconds. It's a ten second, let's say, a ten second window within that 20 to 30 seconds.

Q So I'm going to ask you the question, just a different way:

During the 20 to 30 seconds you described earlier, is there a period of ten seconds where he might feel something; is that what you're saying?

A Sorry, within that 20 to 30 –

Q Yeah, is it before? Or is it within? I didn't –

A Within. It's within.

[249] Q It's within.

So in the 20- to 30-second period, there might be ten seconds where he could feel something; is that what you're testifying to?

A That is correct. But just to clarify, I mean, he could also experience before that ten seconds – I mean, obviously when he's awake, he can experience as I've testified.

Q Right. Thank you.

I don't have think I have any further questions, Doctor.

FURTHER EXAMINATION

BY MR. FOGEL:

Q Clarify quickly: On that last question, matter of clarification, states lawyer asked you if you had reached an opinion on how long this state of mild unconsciousness, somewhere else on the spectrum besides this total unconsciousness, whether you had reached an opinion; is that opinion set forth anywhere in any of your reports?

A No.

Q And you also – also talked about there might, be some ten seconds, where he would experience this level of mild unconsciousness, some level of unconsciousness, [250] somewhere away from the far end of the spectrum. Is this ten-second period identified anywhere in any of your reports?

A No. Not – not a – a [sic] actual quantitative number is not.

Q Okay.

MR. FOGEL: No further questions.

MR. SPILLANE: All right. That's all I have. Thank you.

(Whereupon the deposition of Joseph F. Antognini was concluded at 3:27 p.m.)

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* * *

No. 17-8151

IN THE

Supreme Court of the United States

RUSSELL BUCKLEW,

Petitioner,

v.

ANNE PRECYTHE, *et al.*,

Respondents.

On Writ of Certiorari to the United States Court of Appeals for the Eighth Circuit

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[1] U.S. DISTRICT COURT
WESTERN DISTRICT OF MISSOURI
(KANSAS CITY)

CIVIL DOCKET FOR CASE #: 4-14-cv-08000-BP

RUSSELL BUCKLEW,

Plaintiff,

vs.

GEORGE LOMBARDI, *et al.*,

Defendants.

DEPOSITION OF MATTHEW BRIESACHER
Taken on behalf of the Plaintiff
January 25, 2017

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* * *

[28] Q. Who did you consult in revising the open protocol?

A. I'm not sure that I consulted with anyone. Consult is a difficult word. Can you be more specific?

Q. When revising the open protocol did you work with other people?

A. I created a draft and then I talked to some people about that draft but prior to creating that draft I didn't have specific conversations about what to put in it.

Q. What sources of information did you take into consideration when revising the open protocol?

MS. COULTER: I'm going to object to this line of questioning. It exceeds the scope of discovery. The court specifically disallowed questions regarding development adaptation of current protocol.

Q. (BY MR. FOGEL) Matt, if you could look at paragraph A of the open protocol, it says execution team members.

A. I see that paragraph.

Q. Did you draft that paragraph?

A. Yes.

[29] Q. And you see the first sentence, the execution team consists of department employees and contracted medical personnel including a physician, nurse and pharmacist?

A. I see that sentence.

Q. Why did you include contracted medical personnel including a physician, nurse and pharmacist?

A. I believe that language was carried over from the previous protocol.

Q. In your opinion why was it important to keep that in the execution protocol?

A. To provide clarity on who could be considered a member of the execution team.

Q. And why was it important to have medical personnel as part of the execution team?

A. I believe we were under a court order to – I don't know if it was explicitly a court order but I know there had been guidance from the courts that Missouri executions needed to have medical personnel present.

Q. Do you think it's important for medical personnel to be present in an execution?

A. I do.

Q. Why is it important to have medical [30] personnel present at an execution?

A. To make sure that the execution runs smoothly and properly.

Q. When you say smoothly and properly, what do you mean?

A. That the – I don't know how to expand upon that really. I think it speaks for itself.

Q. Smoothly and I believe the word you used smoothly and properly?

A. Uh-huh.

Q. That there are no unexpected occurrences. Would that fall within your definition of smoothly and properly?

A. Yes. And I guess I can try and explain a little bit more.

Q. Sure.

A. Some of the events that are necessary to carry out an execution by lethal injection such as inserting an intravenous line, I think it would be the best practice to have somebody with training and experience in doing something like that. Drawing syringes, medications, that would be something that somebody with medical training and experience would he better suited at than a lay [31] person. So just out of an abundance of caution it's probably best to have somebody there with that kind of experience.

Q. Did you attend medical school?

A. No, I did not.

Q. Do you have any formal medical education?

A. No, I do not.

Q. Did you consult with any medical professionals in drafting the execution protocol?

MS. COULTER: Objection, goes to the development of the protocol which is excluded by the court's discovery order.

Q. (BY MR. FOGEL) If you look at section B, preparation of chemicals, and it says in number 1, syringes one and two five grams of pentobarbital.

Do you understand what pentobarbital is?

A. Yes.

Q. What is pentobarbital?

A. It's a medication. I think its primary purpose is anti-seizure medication.

Q. And is that the chemical that's used, the sole chemical that is used during an execution?

[32] A. Yes.

Q. And that is the chemical that very succinctly causes death?

A. Yes.

Q. When I say very succinctly in causing death, that's what I mean, paraphrasing that, in that experience.

A. That's what we use it for.

Q. Why does the current protocol use five grams of pentobarbital?

A. That was the amount approved by the department director.

Q. In proposing the use of five grams of pentobarbital did you consider its effect on someone who suffers from cavernous hemangioma?

A. No. I did not.

Q. Do you know if anybody did?

A. At the time that it was drafted, I don't. I have no knowledge that anybody did.

Q. Do you have any knowledge of whether anyone has conducted a study to evaluate the effects of pentobarbital on someone with cavernous hemangioma?

A. I'm not aware of any study, or if one has been conducted.

[33] Q. Do you know if anyone has looked at – any other states to see if they – excuse me – strike that.

Has anyone looked at any other states that uses pentobarbital to see if they've executed someone using pentobarbital that suffers from cavernous hemangioma?

A. I'm not aware of anyone.

Q. Are you aware of any states that have executed someone with cavernous hemangioma?

A. I don't know whether any state has or has not.

Q. Have you looked into that question at any point in your capacity as the director of corrections, in the Department of Corrections until present?

A. No, I do not recall ever looking into that.

Q. If you turn to the second page of the open protocol. Do you see the section that says monitoring of prisoner?

A. Yes, I see that section.

Q. And the number 1 says, the sentence at number 1 says the gurney shall be positioned so that medical personnel can observe the prisoner's [34] face directly or with the aid of a mirror.

Do you see that sentence?

A. I do see that sentence.

Q. Why was it important for the medical personnel to be able to observe the patient's face directly?

A. That language was carried over from a previous protocol so I'm not sure why it was originally inserted.

Q. Do you have an opinion as to why, or it would be important for medical personnel to observe that prisoner's face?

A. My opinion, yes, it would be important.

Q. Why – I'm sorry. Go ahead.

A. So that medical personnel could discern whether or not the prisoner was suffering any unusual distress.

Q. Have you ever attended an execution?

A. I have been on site for an execution but I have not been visually in a place where I could visually observe.

Q. Do you know where the medical personnel stand in relation to the individual who is being executed?

[35] A. Yes, I do.

[redacted]

Q. Do they have line of sight, unobstructed line of sight to the offender?

A. I believe so, yes.

[redacted]

Q. I just want to make sure I understood what you said a few moments ago. You have never personally been in the room or in an area where you can actually witness the execution itself, is that correct?

A. That is correct.

Q. But you are otherwise I think as you said on site?

A. Correct.

* * *

[41] execution team takes responsibility for the offender don't change from their normal duties as the medical unit, so whatever responsibilities they would have to any other offender they would have to that offender.

Q. The non-execution team medical members –

A. Uh-huh.

Q. – are you aware of any policies or protocols that pertain to whether they can or cannot be involved in the execution of an inmate?

A. I don't recall if it is in the contract with that organization or if it's a policy or procedure. But they are – they are excluded from participating in the execution process.

Q. Right. So I'm just trying to reconcile that with what you were just describing in which they might, I believe you said provide some sort of medical attention.

A. Uh-huh.

Q. If they're excluded from the execution process by policy, and we can look at the policy if you want, but if they are excluded from the execution process by policy, then how or why can they provide medical attention to the inmate?

[42] A. Well, for instance, you asked me throw h the entire day. [redacted] Let's say at 7 o'clock in the morning the offender slipped and fell and hit his head. our regular medical unit would be responsible for providing whatever medical care that offender would need from that slip and fall. They're not providing any kind of medical care to prepare for the execution, to further the execution, anything related to it but they have a responsibility, you know.

Q. Sure. But they're not evaluating the inmate to determine whether he suffers from any specific conditions that might lead to complications during the execution process.

A. Correct.

Q. That is outside of their responsibilities, is that correct?

A. That's correct.

Q. So then focusing exclusively on the medical component of the execution team. Prior to the execution do they check the inmate's airways to see if they're having difficult breathing?

A. I don't know.

[43] Q. Aside from administering any additional prescriptions that the inmate might require as part of his daily dose, is there any other evaluation that the medical component of the execution team undertakes that you're aware of?

A. There is a review of the offender's medical history that I'm aware of and then there's, like I mentioned, the physical observation, and it is my understanding under the current practice those are the only two things that occur.

Q. Okay. Looking at the open protocol that you have in front of you.

A. Uh-huh.

Q. Is there anything in the open protocol, and take your time to review it, that speaks to any observation or medical review – strike that.

Is there anything in the open protocol in front of you that speaks to any evaluation that the medical component of the execution team is supposed to undertake prior to the execution?

A. No. There is nothing in the open protocol discussing whether there will or will not be an evaluation of the offender prior to the [44] execution.

Q. Are the execution team members required or expected to follow the execution protocol?

A. They are expected to follow the execution protocol.

Q. Why is it important for them to follow the execution protocol?

A. This is the protocol that the department has adopted to execute an offender and it's important that they follow the department's directions.

Q. And not stray from the protocol?

A. Not without permission.

Q. Are you aware of any studies that were undertaken to evaluate the effect of pentobarbital on the whole body?

A. Not that I recall.

Q. Are you aware of any side effects of pentobarbital on the whole body?

A. Not specifically, no.

Q. And of course I mean with the exception of causing death?

A. Correct.

Q. I just want to make sure we're clear. [45] Yeah.

Do you know of any other states in the United States use pentobarbital?

A. Yes, I do.

Q. How do you know that information?

A. I researched. I guess let me clarify. I have not since leaving the position of general counsel. I don't track this issue nearly as much as I used to, but I know that other states have in the past used pentobarbital and I know that from researching the methods of other states in that role.

Q. Why did you review the methods of other states?

A. One was to prepare the protocol for the Missouri Department of Corrections and then I continued to monitor what other states were doing in that role in case I was asked by the director or anybody else, you know, status of how we compared to other states.

Q. Of all the states that you looked into did they all use some means of lethal injection for execution?

A. The states that I looked into, yes.

Q. Are you aware of any states that do [46] not use lethal injection?

A. I know there are states that have options for lethal injection or some other method as an option. I'm not aware of any state that lethal injection is not at least an option.

Q. What other options are available at the states that you've looked into?

A. I want to say one of the states still has a firing squad, I think one state still technically on the books has the electric chair as an option. I think one state may technically still have hanging as an option but may have come out and said they won't use it. But now I'm really stretching my memory.

Q. Sure. I believe you mentioned lethal gas as one of the options?

A. I'm not aware –

Q. Sorry. maybe you didn't mention lethal gas.

Are you aware of any other states that use lethal gas as a means of execution?

A. I'm not aware of any state that has adopted lethal gas as a current method of execution.

Q. Are you aware of states that have it [47] where it's legally allowed as a means of execution?

A. I think there are states that have statutes that would allow it but I'm not aware of any state that has a protocol to use it. Missouri being an example of that.

Q. So is Missouri legally allowed to use lethal gas?

A. The statute in Missouri says that the director can pick a protocol that's either lethal injection or lethal gas.

Q. Does Missouri have a lethal gas protocol?

A. No. Not that I'm aware of.

Q. When you were asked to draft or revise the lethal injection protocol, were you asked to either draft or revise a lethal gas protocol?

A. I was specifically told lethal injection.

Q. Just want to make sure that you're answering the question I'm asking. Were you also asked to look into either drafting or revising a lethal gas protocol?

A. No one asked me to do that.

Q. Have you ever drafted a lethal gas [48] protocol?

A. No, I have not.

Q. Are you aware of anyone else who was asked to draft a lethal gas protocol?

A. Not at Missouri.

Q. You're aware of someone outside the state of Missouri who was asked to draft a lethal gas protocol?

A. I know there were two states who were asked to research that subject. I don't know if they drafted protocols or not.

Q. Do you know what states those were?

A. Louisiana and Oklahoma.

Q. Do you know why those states drafted a lethal gas protocol?

A. As I said I don't know that they drafted protocol.

Q. I'm sorry. I apologize. Thank you for clarifying.

Do you know why they looked into drafting a lethal gas protocol?

A. I don't recall specifically. I think it was either the direction of a governor or legislature.

Q. Are you aware of anybody in the [49] Department of Corrections or otherwise works for the state of Missouri currently or formerly who has undertaken any efforts to draft a lethal gas protocol?

A. To my knowledge nobody in the Department of Corrections has taken efforts to draft a lethal gas protocol.

Q. What about outside the Department of Corrections?

A. Not that I'm aware of. And I guess to be clear, I'm not aware of the department asking anybody to do that.

Q. Have you ever spoken to legislators about adopting lethal gas?

A. I have not.

Q. Do you know if any individuals in the Department of Corrections have spoken to legislators about adopting lethal gas?

A. Not that I recall.

Q. Does Missouri have a gas chamber?

A. Not a functioning one.

Q. Can you be a little bit – so when you say not a functioning one, what do you mean by that?

A. The old Missouri state penitentiary [50] had a gas chamber and Missouri used to use lethal gas. I believe the state still technically owns the property and I'm not sure if that property's been leased to the city of Jefferson or not but I know the old chamber which is no longer functioning is part of a tour of the old Missouri state penitentiary.

Q. Is the old Missouri state penitentiary a museum now?

A. Yes.

Q. So the old gas chamber is part of the tour of the museum?

A. I believe so.

Q. Do you know how much it would cost to conduct an execution by gas?

A. No.

Q. Do you know how much it costs to conduct an execution by lethal injection?

A. No.

Q. Do you know if anyone's undertaken any studies to determine the costs to conduct an execution by either gas or lethal injection?

A. I don't know that anybody's done a study but I know the department could calculate what they pay for an execution by lethal injection.

[51] Q. Could the department also calculate how much it costs to do an execution by gas?

A. No.

Q. Why couldn't the department do that?

A. There are too many unknown variables about what an execution by gas would entail so it would be impossible to figure that cost out.

Q. Has the department ever tried to figure that out?

A. Not to my knowledge.

Q. And what variables are you referring to when you say there would be too many variables?

A. Well, witho protocol we wouldn't know even basic things, like the cost of the gas, the cost of equipment to administer the gas, the cost of whatever facility would be necessary to construct or modify to conduct the execution there. We wouldn't know the number of staff members needed to conduct the execution and then based on where that execution occurred the number of staff members necessary for safety of the – and security of the location. And those are just off the top of my head. There may be others.

Q. Sure. But to your knowledge has the Department of Corrections, let's take Missouri in [52] general, ever looked into answering those questions?

A. Not to my knowledge.

Q. Do you know if it's possible that you would not need an actual gas chamber or facility but execution by gas could be conducted using a gas mask?

A. I'm not sure. I don't have the expertise to tell you whether or not an actual chamber is needed or if it would be sufficient to do it by mask.

Q. Do you have the expertise to determine how to execute someone by lethal injection?

A. Personally, no.

Q. How did you develop the expertise or at least the appropriate level of skills to draft the protocol, or to revise the protocol for the lethal injection?

MS. COULTER: I'm going to object to any questions regarding the development of the current protocol. It is prohibited by the discovery order.

MR. FOGEL: I think it's relevant because at this moment were probing the [53] feasibility of using lethal gas and the witness has testified that he does not have the expertise or did not have the expertise when he was in the position at the Department of Corrections to be able to answer those types of questions. Yet if the witness can still develop a protocol on lethal injection, I think it's fair to probe why he has the certain set of skills to do it for one means of execution but not the other.

MS. COULTER: I think you can ask about what skills he may have – I understand where you're going but I think you can go head and limit it to asking him what skills he has that allowed him to participate in the drafting but I don't think you can get into how – who he may have consulted with in forming the policy. If that makes any sense.

MR. FOGEL: So let me ask a question this way and then you let me know if it's permissible or not.

MS. COULTER: Okay.

Q. (BY MR. FOGEL) Did you have at the time that you were asked to revise the lethal injection execution protocol, did you already have sufficient knowledge to revise the protocol at that [54] point in time?

A. At the time I was asked, no, I did not.

Q. Did you develop knowledge or we'll even say sufficient expertise in order to be qualified to revise the lethal injection open protocol?

A. After I was asked to revise the protocol I developed the knowledge I believed was necessary to present the draft that I presented.

Q. Have you ever attempted to acquire similar knowledge in order to develop a lethal gas protocol?

A. I have thought about it but I have not undertaken the kind of efforts that I did for the lethal injection protocol.

Q. What did you think about when, as you just said, what were you thinking about?

A. As I mentioned before Missouri statute allows lethal injection and lethal gas, so I did a little bit of research so that I could become familiar with what that could mean or could entail. I read a few articles that were available theorizing how an execution by lethal gas would be both feasible and legal. And then at that point I [55] kind of hit a wall. Those articles were more theoretical and I didn't know where to go from there on how to draft a protocol and since it was more just having a working knowledge of what that would be, I didn't really dig deeper.

Q. Was this approximately in 2013?

A. It would have been over the course of time, between 2013 and 2000 – while I was general counsel.

Q. And was this, the review of these articles, or would it be fair to say, is it okay if I call it research, would that accurately describe?

A Yes, I'm okay with that,

Q. So did you undertake this research relating to lethal gas in connection with your responsibilities of revising the execution protocol for lethal injection?

A. I'm not sure I can agree with that. I felt as the general counsel it was my responsibility to be at least familiar with the legal methods of execution. You know, I mentioned I did that for lethal gas because it was in the Missouri statute but I also researched other methods in other states, that's how I know that firing squad is legal in one state. So I wanted a [56] working knowledge so as general counsel if I was asked what are other states doing I could somewhat answer that question or very quickly know the resources that I could go to to answer those questions.

Q. You mentioned that you quote, hit a wall when you were researching lethal gas. Can you expand on what you mean by that?

A. There are a number of factors to write a protocol that I – the research available was not sufficient to answer to me and given the difference between lethal gas, you know, the articles I read were transitioning from, for lack of a better word, poison gases that were used historically to more inert gases. You know, I read articles that proposed various gases but I didn't even know what kind of expert I would need to go to to tell me which inert gas would work more effectively or less effectively.

Delivery methods, there wasn't really any discussion on the research that I found about as we talked about before. Would you need an actual chamber or would some kind of face mask or gas mask be sufficient. If it was, what were the requirements of that.

[57] I knew that because we were doing this on – in a workplace, there would be OSHA guidelines. So I

tried to look, if you're using some kind of toxic or hazardous gas material, what the requirements for venting the rooms and those kind of things. And execution by lethal gas falls outside the – I'm sorry, I shouldn't be sarcastic, but execution, this kind of situation didn't seem to comply with the regulations, or be contemplated by the regulations of OSHA, so I didn't know who would I go to about that.

I wouldn't know the quantity or the concentration of the gas. Again, the articles were theoretical and I wouldn't know what kind of expert to go to or what kind of person to go to to answer those questions. You know, which gas is better. If I use a gas, what quantity or quality I would need to use. How long it would take and then the safety of the environment around it. How to best administrate and then also to protect for the individuals who are witnessing the execution.

Q. So you did not know the answers to those questions?

A. I didn't know the answer to those questions and I didn't know how to go to find [58] answers to those questions.

Q. So it's fair to say you did not consult anyone else in trying to determine the answers to those questions?

A. I talked generally. We have a health and safety unit and I mentioned the OSHA regulations. I generally talked to them, you know, where would be the guidance on, if you were introducing a lethal gas into the workplace about ventilation and things, so they directed me there. But like I said, I wouldn't know who to talk to. It didn't seem to fall in any specific expertise.

Q. And because you couldn't find somebody with that specific expertise to answer those questions those questions generally remained unanswered?

A. I had not been directed to do anything more than that. Like I said, it was just me thinking personally so that I could be prepared, so, I mean to be candid, no, I didn't go out and try to find answers to those questions.

Q. Did you report – I don't want to say findings, because it sounds like you didn't necessarily make any findings, but did you report that you had undertaken this research and had these [59] questions to the director of the Department of Corrections?

A. No, I didn't. I didn't provide any specific detailed report on my information to the director.

Q. Did you provide any update on your research to any of your other supervisors?

A. No. Nobody had asked me to do that research. I had taken it upon myself.

Q. And aside from that research that you just discussed, have you undertaken any – did you undertake any other efforts to evaluate the feasibility of using lethal gas in the state of Missouri?

A. I don't recall anything other than what I have just discussed.

Q. Am I correct that you were undertaking this work when you were general counsel of the Department of Corrections?

A. That's correct.

Q. And in 2014 you were no longer the general counsel, is that right?

A. 2000 – yes, that's correct.

Q. Did you share any of this information with the individual who succeeded you?

[60] A. Yes. I think we discussed generally lethal gas. I'm not sure the level of detail but it would have been some detail.

Q. Why did you discuss lethal gas with your successor?

A. He was taking my role and I felt that the general counsel for the Department of Corrections should have some knowledge especially of a method that was listed in the statute, so I kind of explained to him what I had done and the walls that I had hit.

Q. What else did you and – who is the individual that followed you as the general counsel?

A. Richard Williams.

Q. What else did you and Mr. Williams discuss regarding lethal gas?

A. That would have been it. It would not have been a – well, I take – I don't recall when this lawsuit was filed so there may have been a discussion that Mr. Bucklew was alleging or requesting lethal gas. That would have been the only other conversation.

Q. So you discussed it in connection with your conversations with Mr. Williams relating [61] to Mr. Bucklew's lawsuit?

A. To the litigation.

Q. And it was – because it was your understanding that Mr. Bucklew was alleging that lethal injection would pose a significant harm to his health in violation of his 8th Amendment rights, is that correct?

A. That is my understanding of his allegations.

Q. Okay. And did you have that conversation with Mr. Williams because you were considering whether lethal gas was a viable alternative?

A. No.

Q. Is that because you just did not know whether lethal gas could be a viable alternative?

A. No. That conversation was about the litigation, that it had been filed, you know, a review of the litigation.

Q. After you became deputy general counsel did you do any other investigation or research relating to lethal gas?

A. I may have read some articles about, I mentioned those two states, and again timelines are difficult, but those two states doing reports [62] or studies. So I may have read news articles about them but I didn't do – and in this sense I wouldn't agree with the word research.

Q. I'm sorry?

A. When I became –

Q. You would not agree with the word research. Fair enough. Okay.

Do you know if Mr. Williams or anybody else within the general counsel's office of the Department of Corrections did any research or general looking into the possibility of lethal gas?

A. I don't have any specific knowledge and Mr. Williams would have been the only one in my opinion who would have had a role in that in that as the general counsel, so I don't know if he did or didn't. I

don't think anybody else in the legal unit. They would not have done it in connection with their job. I cannot speculate about their personal life.

Q. The materials that you uncovered through the course of your research on lethal gas, what did do you with them? Strike that.

Do you still have the materials that you uncovered from your research on lethal gas?

A. No, I do not.

[63] Q. What did you do with them?

A. I don't recall to be honest.

Q. Did you give them to Mr. Williams?

A. I don't think I did.

Q. Did you hold on to them at the time that you became deputy general counsel?

A. Maybe for a period of time. But like I said, I don't recall what happened to them.

Q. Did you keep a hard copy file of the information you gathered on lethal gas?

A. I may have saved or I may have printed one article or two and it may have been saved, maybe as more intentional sounding, I may have retained that for a period of time.

Q. Right. Did you keep any electronic files?

A. No.

Q. You mentioned that there are variables relating to lethal gas that remain unknown to you, is that right?

A. That's correct.

Q. And to your knowledge nobody within the Department of Corrections or under the state of Missouri has ever tried to answer those variables or unknowns?

[64] A. That's correct.

Q. Did you ever reach the conclusion that lethal gas was not a feasible option within the state of Missouri?

A. With the resources I had available to me I would say that it wasn't a feasible option.

Q. And what was the basis for that opinion or conclusion?

A. As I said, I think there were just a number of variables that I'm not sure that we had the resources to answer. And as I said, I kind of thinking it through didn't even know where to go to get those answers.

Q. So you didn't know the answers to those questions, yet you concluded that it would not be a feasible option because you didn't know the answer to those questions?

A. Because we didn't have the resources to answer those questions, that's kind of where I was at.

Q. Matt, I'm showing you a document that's marked as Plaintiffs Exhibit 9. If you can just take a moment to review that.

A. (Reviewing document.) Okay. I've reviewed this.

* * *

[73] means of execution?

A. Yes.

Q. Do you know if the Department of Corrections has a set of factors or considerations in determining whether a means of execution is a viable or feasible alternative?

A. I'm not sure I understand that question.

Q. Probably because its a poorly worded question.

What factors does the department – strike that.

What factors does the Department of Corrections take into consideration in determining whether a different means of execution is feasible?

A. I don't know.

Q. Are you aware of any set factors or procedures that the Department of Corrections has in evaluating whether an alternative means of execution is feasible?

A. No, no formal ones.

Q. No formal commission or committee of individuals that are dedicated to evaluating them?

A. No, the ultimate say is the director of the department so I don't know if he had any set [74] factors. I'm not aware of anything in writing, not aware of any policy or procedure.

Q. The director of the Department of Corrections has final say on what is – what means of execution are used, is that correct?

A. That's correct.

Q. Okay. And so he would have the final say in determining whether lethal gas is a feasible means of execution, correct?

A. Correct.

Q. Did you discuss any of your quote research or looking into lethal gas with the director of the Department of Corrections?

A. Not in any specifics.

Q. Did you discuss it at all?

A. Once or twice we mentioned lethal – or I mentioned lethal gas was an option and we probably briefed him on the litigation by Mr. Bucklew and he emphatically expressed to us that lethal gas was not something he wanted to do.

Q. I'm just looking back and reading the transcript, the rough transcript. It says once or twice you mentioned lethal gas was an option.

A. Uh-huh.

Q. Could you explain to me what you said [75] to the director when describing lethal gas as a potential option?

A. I think I would have said – I shouldn't say what it says. I think what I recall saying, the conversation I remember most vividly is that Mr. Bucklew had or we anticipated he was going to propose a method of lethal gas. So we reminded the director that lethal gas was authorized by the statute and he made it clear that he didn't want us to pursue that.

Q. Is that why you stopped looking in to why lethal gas was a feasible alternative?

A. No.

Q. Would you have had authority to continue looking into the possibility of lethal gas as an alternative had the director not told you not to look into it?

MR SPILLANE: I'm going to object to the question. I think it assumes facts not in evidence. I don't think he said the director told him not to look into it. I think he said the director told him they were not going to do it.

MR. FOGEL: Can we go back and look at the answer the witness gave?

(WHEREUPON, A DISCUSSION WAS HELD OFF THE RECORD)

[76] Q. (BY MR. FOGEL) He made it clear to us that he didn't want us to pursue that. What do you mean then by what the director told you he didn't want you to pursue that?

MS. COULTER: I'm going to object at this point. It's going into attorney-client privilege if he was acting as legal counsel to the director.

MR. FOGEL: Are you instructing the witness not to answer the question?

MS. COULTER: Yes.

Q. (BY MR. FOGEL) Okay. Aside from that conversation did you have any other conversations with the director regarding the use of lethal gas?

A. I may have had one or two others or one or two total. I don't recall the specific number.

Q. Did you tell the director that lethal gas was not a feasible option?

MS. COULTER: Objection, attorney-client privilege.

Q. (BY MR. FOGEL) Just so it's clear for the record, you're instructing the witness not to answer the question?

[77] MS. COULTER: Unless he wants to answer but my advice to you would be not to answer.

THE WITNESS: I'm going to follow the advice of my legal counsel.

Q. (BY MR. FOGEL) Was this a privileged communication – who else was present for this communication with the director?

A. I believe the general – I think one of the conversations happened when I was the deputy general counsel and the general counsel would have been present in the room but that would have been it.

Q. And the other conversation?

A. Would have been as general counsel so it would have been just me.

Q. Just you and the director?

A. And the director.

Q. Nobody else was present for the conversation?

A. Correct.

Q. I think as we've established both lethal gas and lethal injection are allowed by law under Missouri statute, correct?

A. Correct.

Q. Do you believe that the Department of [78] Corrections has an obligation to explore the viability of lethal gas as a means of execution?

A. No.

Q. Do you know when the last time the state of Missouri tested the gas chamber before it went into retirement for use as part of the tour?

A. No, I don't.

Q. Do you know the results of the last time it was tested?

A. No, I don't.

Q. If it was determined that lethal injection was not a viable option for means of execution, what would the state of Missouri do?

MS. COULTER: Objection, calls for speculation.

Q. (BY MR. FOGEL) Do you know what the state of Missouri would do if lethal injection was determined not a viable option for a specific inmate?

A. No, I don't know.

Q. Did you make – at the time of Mr. Bucklew's litigation in 2014, or at any other point in your capacity as working in the general counsel's office at the Department of Corrections, did you make the recommendation that the Department [79] of Corrections explore the possibility of lethal gas?

MR. SPILLANE: Excuse me. I'm going to object on privilege. You said in his capacity as general counsel what recommendation did he make? I'm objecting based on attorney-client privilege.

Sue?

MS. BONOIST: Yeah, well, I agree. I was starting to talk and Mike jumped in.

A. I'm going to follow the advice of counsel.

Q. (BY MR. FOGEL) Sure.

Outside of your capacity as other deputy general counsel, general counsel or legal counsel, did you ever make the recommendation that the Department of Corrections should consider exploring the viability of lethal gas as a viable alterative?

A. No.

Q. Are you aware of anybody else ever making that recommendation?

A. I'm not aware of anybody making that recommendation.

Q. Based on your experience do you think the Department of Corrections is capable of [80] undertaking an investigation into whether lethal gas is a viable alternative?

MS. COULTER: Objection, speculation.

A. Your question is whether the department is –

Q. (BY MR. FOGEL) Capable of undertaking investigation to determine whether viable gas is a viable alternative – excuse me, whether lethal gas is a viable alternative.

A. I guess I would say yes, the department is capable of initiating, undergoing an investigation if it so chose to do so.

Q. But as far as you're aware to date the department has chosen not to do so?

A. It has not done so.

Q. Do you know if it has chosen not to do so?

MS. COULTER: Objection. I think the basis for his answer would be based on privileged conversations.

Q. (BY MR. FOGEL) Is that correct, that your basis for knowing that would be based on privileged conversations?

A. The only conversations I would have had regarding that were in my role as either deputy [81] general counsel or general counsel.

Q. So the answer is yes, it would be based on privileged conversations?

A. Yes.

Q. Okay. And I'm not interested in probing your privileged communications.

To your knowledge, though, you are not aware of anyone undertaking any further research or otherwise looking into the prior information you gathered on lethal gas, is that correct?

A. That's correct.

MR FOGEL: Why don't we take a short break?

(WHEREUPON. A RECESS WAS TAKEN BY THE PARTIES)

Q (BY MR FOGEL) Matt, before we took a break we were talking a little bit about, you know, I'm using the term research here as we previously discussed, to describe the looking into you did regarding lethal gas as a possible means of execution. And one of the things you mentioned or I guess kind of the walls, part of the wall that you ran into is that you did not know how much gas should be used.

Was one of the questions also what [82] type of gas to be used?

A. Correct.

Q. And fair to say you did not figure out an answer to arrive at an answer to either question, is that right?

A. That's correct.

Q. At the time that you were drafting, or when you were about to start revising, I should say for the first time the lethal injection protocol, did you how much pentobarbital should be used, just pentobarbital

generally? Did you know that pentobarbital should be used?

A. The first time I redrafted was under propofol.

Q. Okay.

A. And the answer to your question on that one was yes.

Q. Yes, you knew pentobarbital should be used?

A. Yes, given the nature of the changes I knew what drug and how much. I wasn't tasked to change that portion of the protocol.

Q. Got it. So did someone tell you that were going to use pentobarbital?

A. No.

[83] Q. How did you find out or how did you make a determination to revise protocol to use pentobarbital?

A. I was tasked with revising the protocol. I made the recommendation of pentobarbital.

MS. COULTER: And I'm going to object to any questions on this line of inquiry because it does talk about the development of protocol which is excluded from the discovery order.

MR. FOGEL: Yes, but this – well, let me ask another question and maybe we can maybe revisit that objection.

Q. (BY MR. FOGEL) How did you know how much pentobarbital to put in to the revised protocol?

A. That number came from protocols that had been used in other states.

Q. So you undertook some research or investigation to determine what would be the appropriate amount of pentobarbital to include?

A. Yes.

Q. Did you ever undertake any research or investigation to determine how much gas should possibly be used in a lethal gas execution?

[84] A. No. there was no research available to answer that question.

Q. You also mentioned that you did not know whether OSHA would apply to lethal gas, is that correct?

A. That's correct.

Q. Does OSHA apply to lethal injection?

A. Not that I'm aware.

Q. You do not know if it does not and you also do not know if it does, one way or the other?

A. And I guess I should say too that one of the – one of the areas, you know. I don't know either – first, sorry.

Q. Sure.

A. To answer your question, no, I don't know either way. But one of the articles that I read that proposed lethal injection, or lethal gas as a feasible method was from deaths that occurred on the workplace and accidental deaths that occurred on the workplace and that's where I got the idea of OSHA regulations providing a guideline or a framework for those who would be witness to the execution by lethal gas.

Q. Did you undertake any other research [85] beyond that relating to the OSHA guidelines?

A. No.

Q. Is either the open or closed protocol designed such that it can be customized to an inmate's specific condition?

A. Yes.

Q. How is the open protocol designed so it can be customized to an inmate's specific condition?

A. You said or.

Q. Sure.

A. The open protocol is not designed to be customized.

Q. How was the closed protocol designed to be customized to an individual's specific condition?

A. Each time that there's a scheduled execution for an inmate that is reviewed and customized as needed. As long as it doesn't conflict with the open protocol.

Q. Do you know how the closed protocol would be modified for someone who suffers from cavernous hemangioma?

A. No, I don't know.

Q. Are there any protocols in place if

* * *

[1] U.S. DISTRICT COURT
WESTERN DISTRICT OF MISSOURI
(KANSAS CITY)

Civil Docket for Case #: 4-14-cv-08000-BP

RUSELL BUCKLEW,

Plaintiff,

vs.

GEORGE LOMBARDI, *et al.*,

Defendants.

DEPOSITION OF DAVE DORMIRE
Taken on behalf of the Plaintiff
January 24, 2017

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* * *

[14] Center?

A. Yes.

Q. Commonly known I think as the ERDCC, is that right?

A. Yes.

Q. And who is that?

A. Troy Steele.

Q. And what's your understanding of Mr. Steele's position?

A. He has similar responsibilities that I have as warden. He's in charge of that prison, he's in charge of

the safety and security and responsible to the staff and the offenders.

Q. How often would you say you interact with Mr. Steele?

A. Not on a regular basis, maybe only two, three, four times a month in addition to a site visit now and then.

Q. Who do you report to?

A. I report to the director of the department.

Q. And that was formerly Mr. Lombardi. correct?

A. Yes.

Q. And then it is now Anne Precythe?

[15] A. That's correct.

Q. And what's your understanding of the director of the department's role?

A. The director is over all the departments, over all the divisions, has ultimate responsibilities over the department.

Q. And have you interacted with Ms. Precythe since she took on her new role?

A. Some, yes.

Q. And what have those interactions been related to?

A. Meeting with her, she visited, we went to Bonne Terre yesterday to show her that institution.

Q. Do you have any medical training?

A. No.

Q. Did you ever attend medical school?

A. No.

Q. Are you a chemist?

A. No.

Q. A biologist?

A. No.

Q. Does the state of Missouri have an execution protocol?

A. Yes.

[16] Q. And what is your understanding of an execution protocol?

A. My description of it is that it's a plan for how an execution is to be carried out.

Q. And why does the state of Missouri have an execution protocol?

A. We, I believe we need a formalized plan to make sure we're following the procedures the way, consistently each time.

Q. So that's Plaintiffs Exhibit 5.

A. (Reviewing document).

Q. Do you recognize that document?

A. Yes.

Q. Can you describe what that document is?

A. It is Missouri Department of Corrections preparation and administration of chemicals for lethal injection.

Q. Is that commonly referred to as the open protocol?

A. I believe so, yeah.

Q. What's your involvement in execution by lethal injection?

A. My rule during the execution is to brief the state witnesses and stay with the state [17] witnesses during the execution.

Q. Is that it?

A. That's, I meet, I have some responsibilities to make sure that the institutional operation, the non-medical, medical members are there. I meet with them, I head up the execution. I make payment on behalf of the department to the medical members at the time.

Q. You mentioned that you meet with the execution team members in advance.

A. Yes.

Q. What's the purpose of that meeting?

A. I am, I'm there just overseeing the operation to make sure everything is in place and everything's in order.

Q. Can I elaborate that, on that a little bit more? So what are you looking at that's in order? Is it the chemicals, or?

A. It is everything in, that we have to do in preparation for an execution to make sure everyone's in place, that the institutional operations are proceeding as they should.

Q. By everything do you mean the execution team members or is it broader than that?

A. A little bit broader than that. I'm

* * *

[22]

[redacted]

Q. You mentioned that the warden also is involved in the execution although not part of the execution team, correct?

A. Correct

Q. And are you referring to the warden of the ERDCC?

A. Yes.

Q. And what is your understanding of the warden's responsibilities during an execution?

A. When directed to proceed he reads the warrant and directs the execution to proceed. Once given direction from the director of the [23] department.

Q. You also mentioned the deputy warden. Also of the ERDCC?

A. Yes.

Q. And what is the deputy warden's role?

A. Operational. In charge of ensuring that the victims and states and offender witnesses are moved and kept separate and all of those sort of things.

(MARKED PLAINTIFF'S EXHIBIT NO. 12)

Q. (BY MS. NOTTON) Are you familiar with this document?

A. Yes.

Q. Can you describe what it is?

A. This is a document to the non-medical members of the team indicating they're to use this notation NM1, 2, 3, 4 to protect their identity.

Q. So these are the letters that tell the execution team members what their pseudonyms are.

A. That's correct.

Q. Okay. Can you turn to the second page? That letter is a letter to team member NM2, is that correct?

A. Yes.

[24] Q. In your response to Interrogatory number 9 you don't identify an NM2.

A. Correct.

Q. Is NM2 no longer part of the execution team?

A. That's correct.

Q. Do you know what role NM2 played?

A. NM2 would have been a non-medical team member at one point.

Q. Turning back to your affidavit, which I believe is Plaintiffs Exhibit 7. In that affidavit you indicate that the Department no longer uses Methylene blue, is that correct?

A. That's correct.

Q. In paragraph 4 you say the DOC has not used Methylene blue in any execution since January of 2014. Correct?

A. Correct.

Q. You go on to say that the DOC has the intention of doing so in the future. Is that accurate?

A. Yes.

Q. They do intend to use Methylene blue in the future?

A. No. I should have said no intention.

[25] Q. So to be clear the DOC has no intention of using Methylene blue in the future.

A. Yeah. We have no intention of using it in the future.

Q. Thank you. You can put that document aside.

A. Okay.

Q. Turning back to the open protocol which is Plaintiffs Exhibit 5. This indicates that pentobarbital is the drug used in the lethal injection process, is that correct?

A. Yes.

Q. Is that the only drug used?

A. Yes.

Q. Do you know the effects of pentobarbital on the human body?

A. I have no medical training but I've observed the five grams of pentobarbital cause death.

Q. Do you know why it calls for five grams of pentobarbital?

A. Five grams, no. I don't know how that was determined to be the amount.

Q. Do you know why it calls for two syringes?

[26] A. I believe it's based on the quantity and the size of the syringes.

Q. If pentobarbital is not available does the Department have any backup plans or protocols in place?

A. No.

Q. The protocol indicates that medical personnel put IV lines into the prisoner, is that correct?

A. That's correct.

Q. Before inserting any of the IV lines do you know if the medical personnel check an inmate's airways?

A. I am not present during that, no. I don't know.

Q. Okay. So you don't know if they check blood pressure?

A. I don't.

Q. Or anything else.

A. I do not.

Q. If an execution team member is not able to find a strong enough vein to insert the line into is there a protocol in place for that?

A. Under, in these lines it talks about the, some options in there. They may insert a [27] primary and it says or central venous line and it indicates other options to that.

Q. Have you ever observed an execution where they had trouble inserting the IV?

A. No.

Q. So to your knowledge none of the prior executions in Missouri have encountered any difficulty with that.

A. I'm not present during that process.

Q. Are you aware of any side effects to pentobarbital?

A. No.

Q. The protocol talks to the monitoring of a prisoner during an execution. What is your understanding of the purpose of that monitoring?

A. They have an EKG machine and direct observation, I believe the purpose is to, for medical personnel

to access to make sure it is going according to the protocol.

Q. Do you know what the medical personnel are looking for as they monitor?

A. Not in detail, no.

Q. Is anyone else responsible for monitoring the prisoner?

A. Non-medical staff are watching as [28] well, but. The primary responsibilities for monitoring would be the medical staff.

Q. The protocol suggests that the staff, the inmate is positioned so the medical personnel can observe the prisoner's face directly. Why do you think it focuses on the face?

A. I don't know.

Q. The protocol indicates that the first five grams of pentobarbital is injected and then following a sufficient amount of time for death to occur medical personnel examine the prisoner. And that's in section E. What would you say is a sufficient amount of time for death to occur?

A. From my observation with state witnesses it occurs at about seven minutes where they go and check.

Q. In section F of the open protocol it discusses the sequence of chemicals and chemical log. Are you familiar with those documents?

A. Yes.

Q. Are you involved with those documents in any way?

A. I sign when those come back, I sign those prior to the director of the department signing those when they come back after an [29] execution.

A. That's correct.

Q. Can you describe for me what valium is used for?

A. We don't use valium anymore but at one time we offered vellum to the offenders for a sedative if they wanted one. This was prior to the execution.

[30] Q. But that's no longer offered?

A. No.

Q. Why not?

A. We currently do not have any valium.

Q. What is versed?

A. I don't know the drug terms. It also is a sedative in my understanding.

Q. And the inmate has the option of taking a sedative, is that correct?

A. Yes.

Q. And when is that sedative offered to the inmate, do you know?

A. About. I'm going to say something like four hours before the execution and then with the statement the offender can ask for a sedative any time following that.

Q. Are they able to ask for it up until execution?

A. They are.

Q. Would there be any reason why an inmate would be given a sedative without them wanting it?

A. I can see a scenario. I'm not aware of any situation. If an offender were potentially out of control I could see that scenario but that [31] hasn't occurred.

Q. And then finally lists Lidocaine. What is Lidocaine used for?

A. That is. I believe that is a, something that they use when they're setting the IV. I don't believe, it's not considered a controlled chemical or anything but it's something they use when they set the IV.

Q. And is it topical or do they inject it, do you know?

A. I do not know.

Q. And to your knowledge are any other chemicals or drugs involved in the execution process at all?

A. Not in the process, no.

Q. So the open protocol suggests that any irregularities should be noted on the sequence of chemicals or the chemical log. What does that mean?

A. That would, to my mind that would mean that something other than five grams were utilized for pentobarbital or something like that.

Q. Have you ever seen one of these documents have an irregularity?

A. No.

[32] Q. Is there a protocol in place for an instance where there is an irregularity?

A. Other protocol says that it's notated if there is one.

Q. And nothing further is done after that.

A. I don't know that I understand your question.

Q. Sure. Let me rephrase.

So if an irregularity was noted are there subsequent steps than taken after that or is it just a notation that's made?

A. We have not had that situation so it would be hard for me to tell you when nothing would occur or whether we would react and do something. It would depend on what occurred.

Q. Okay. So to your knowledge there's nothing, there's no steps or a specific protocol in place for that.

A. For what is your question?

Q. For dealing with any irregularities.

A. I believe we would react. The reason for us to review is to see if there were and to report those.

Q. Of course. But my question is is [33] there anything formally documented for that?

A. To say what we would do if a scenario happened?

Q. Yes.

A. No.

Q. Okay. So once you receive the sequence of chemicals and chemical log what do you do with them?

A. I look at them, sign them and send them to the director.

[34]

Have you ever seen an execution halted for any reason?

A. No.

Q. Can you describe for me how prisoners are positioned during an execution?

A. They're laying on the [redacted] there

[35]

Q. And the gurney is set up so that the inmate is laying flat, is that correct?

A. Yes.

Q. Have you ever seen the gurney in any other position?

A. I don't think so,

Q. During an execution if the drug does not appear to be functioning as expected is there a protocol in place for that?

A. There's a protocol to assess and discuss with the director about repeating the process.

Q. What do you mean by repeating the process?

A. The protocol says to have five grams [36] ready and then if death has not occurred then medical personnel assess, report, that information goes to the

department director for her decision of whether or not to administer a second five grams.

Q. What about if the prisoner begins convulsing, is there a protocol in place for that?

A. There is not.

Q. How about if a prisoner starts hemorrhaging, is there a protocol in place for that?

A. No.

Q. How about if a vein blows, is there a protocol in place for that?

A. No.

Q. Would it be fair to say that the department has not had to deal with a situation like that under the current protocol?

A. True.

Q. Is there a run-through of the execution in advance?

A. Yes.

Q. And when does that occur?

[37] Q. Is that for a particular execution the one that occurred [redacted]

A We have various run-throughs making sure staff are all prepared [redacted] we did a full run-through because it's been a while since we've done a run-

through so we ran all the staff through their dunes yesterday.

Q. And how often does that occur?

A It occurs [redacted] was the first time we've had a full one for quite a while because we've had, after executions we don't do a full run-through if we've had an execution recently.

Q. And that run-through assumes the execution will go as planned, is that correct?

A Yes

MS NOTTON: Why don't we take a little break?

A Sure.

MS NOTTON: Perfect.

(WHEREUPON A RECESS WAS TAKEN BY THE PARTIES)

[38] A. Okay.

Q. Have you seen this document before?

A. Yes.

Q. Can you describe what it is?

A. It is a pre-execution summary of medical history.

Q. And what is it used for?

A. It is used to inform the medical staff of the execution of any conditions the offender might have.

Q. And who fills this out?

A. Our medical director at central office. Delouis Williams.

Q. And you said it was Delouis?

A. Delouis Williams, yes.

Q. And where does Delouis Williams get that information from?

A. She gets it from his case file.

Q. Okay. And when is this usually filled out in advance of an execution?

A. Generally two to three to four weeks ahead of an execution.

Q. Are there any other medical evaluations that are done prior to an execution?

A. This is the only one I'm aware of.

[39] Q. Do you know if inmates are evaluated in any other way prior to an execution?

A. I know that mental health does a report.

Q. Is that it?

A. As far as evaluation, yes, I believe so.

Q. Are you involved in approving an execution in any way?

A. In which?

Q. Are you involved in approving an execution in any way?

A. No.

Q. Are any steps taken to prepare a prisoner for execution?

A. We offer obviously mental health counseling, we offer chaplaincy services, thing like that. I don't know, we have a case worker that's assigned to assist. I don't know exactly what your question is.

Q. Is there a process in place to determine if an individual is competent to be executed, medically or otherwise?

A. I believe that's the purpose of the mental health evaluation that's submitted.

[40] Q. Does the physician on the execution team ever evaluate the inmate prior to an execution?

A. I don't know what the term evaluate would mean. Obviously [redacted] is the one placing the IV so I don't know what procedure and what [redacted] does just prior to that.

Q. Okay. Does [redacted] interact with the inmate before the actual execution day?

A. Before the day? No.

Q. Okay.

You've observed executions before, correct?

A. Yes.

Q. Now many times would you say?

A. All the ones that have occurred since I've been director so that's, I don't know how many that number is. 17. 18. I don't know the number. Something like that.

Q. Where are you normally observing these executions from?

A. From the state witness room.

Q. And can you describe where that is in relation to the execution room?

A. It is one of three rooms that [41] surrounds that room where the offender is on the gurney. One is state witnesses, one is victim's witnesses and one is his witnesses.

Q. And are you behind glass or a door?

A. We're behind glass, yes.

Q. Is anyone generally in the execution room with the inmate during an execution?

A. No.

Q. Turning to your answer to Interrogatory number 3. I believe you answered that all executions using pentobarbital have been rapid and painless, is that correct?

A. That is correct. I don't see it in that – oh, yes. That is correct. Yeah.

Q. What would you consider to be rapid?

A. As I stated earlier the offender is seemingly unconscious within a few seconds and each time the medical staff have gone in he has been deceased at about seven minutes, seven or eight minutes.

Q. And is your basis for that strictly your own personal observation?

A. Yes.

Q. You also indicate it's painless. What's your basis for that?

[42] A. I see no movement, no reaction from the offender.

Q. And outside of your personal observations do you base that on anything else?

A. No.

Q. Do you know what cavernous hemangioma is?

A. No.

Q. Are you aware that Mr. Bucklew has tumors in his airway?

A. Only if it's on that medical sheet.

Q. To your knowledge have you ever had an inmate with cavernous hemangioma?

A. To my knowledge, no.

Q. Have you ever had any inmates on death row who were prone to hemorrhaging or choking?

A. I don't know. I'm not aware of any.

Q. Do you know if the department's ever researched whether a person with cavernous hemangioma can be safely euthanized or executed?

A. I don't know that.

Q. Do you know how Mr. Bucklew's condition has been monitored?

A. I know that we have medical staff in [43] every facility that monitor all medical conditions.

Q. Will any special steps be taken in the days or weeks leading up to an execution to monitor his condition?

A. I don't know the answer to that. I know medical staff will tell us if they believe there's any issues they have with his condition but I'm not aware of anything that will occur right now.

Q. Have you ever had an execution stopped or delayed because, for medical reasons?

A. I know Offender Bucklew was scheduled for an execution and I know under appeal it was stayed. But I don't know whether it was due to legal processes or his medical, I don't know the rationale that was used to stay it.

Q. Outside of Mr. Bucklew's case though are you aware of any?

A. No.

Q. Are the execution team members aware of each inmate's medical conditions, assuming they have any?

A. Yes.

Q. And how are they made aware?

A. I bring them that document that shows [44] the medical issues that have been identified.

Q. The one page pre-execution medical summary?

A. Yes.

Q. Anything else?

A. No.

Q. Do you know if the protocol will be customized in any way for a condition like Mr. Bucklew's?

A. I have no reason to believe it would be.

Q. How does signoff for an execution work, do you know?

A. Say that term again.

Q. Signoff for an execution, so who signs off on the execution?

A. I don't know what that term means.

Q. Sure. Let me rephrase.

What is the process for approving an execution to go forward?

A. I know that the director of the department is charged with making sure there are no stays in place and they stay in communication with the governor's office, with the attorney general's office to make sure there are no stays or other [45] reason that would hold up the execution. If there are none then the director gives the directive to proceed.

Q. Is lethal injection the only manner allowed under Missouri Jaw to inflict the punishment of death?

A. No.

Q. What else is allowed?

A. The statute refers to lethal gas.

Q. Does the state of Missouri have a lethal gas protocol?

A. No.

Q. Why not?

A. We don't have a method or a gas chamber right now.

Q. Do you know why not?

A. We have an execution protocol that has been rapid and painless so that's what we've utilized.

Q. Are you aware of the DOC or the state conducting any evaluations into the use of lethal gas?

A. No.

Q. If lethal, the lethal injection protocol was not a viable option for an execution

* * *

[50] grievance is a segment and the appeal is a segment. Each one has a timeline.

Q. And you indicated earlier that on the appeal process you're just looking to make sure those, the timing was followed and whatever protocols or policies are in place were followed, is that correct?

A. I indicated on medical grievances, as a warden that's what I'm looking for is to make sure those are followed because I'm not making a medical response as a warden. I'm signing off that the health services administrator is signing those responses, I am signing those grievances but not as a person that is making a medical opinion or anything.

Q. Okay. So if an inmate were to bring the same grievance again, and let's say there was a different policy in place, would that change the evaluation process?

A. The timelines?

Q. The timeline or how it's evaluated on appeal.

A. Our policy is, says how many days each segment which I'm describing is to occur. That doesn't change unless it's considered an [51] emergency grievance then it is sped up because it's considered an emergency grievance.

Q. And what do you generally consider an emergency grievance?

A. In my opinion that's something that would immediately affect someone's life.

Q. Okay.

MS. NOTTON: That's all of our questions.

MS. COULTER: I've got a couple of questions for you.

EXAMINATION

QUESTIONS BY MS. COULTER:

Q. You had talked about the gurney that the offender is strapped to prior to the execution.

A. Yes.

Q. Do you know if the angle of the gurney is adjustable?

A. I believe it is. I know it's not a fixed gurney as far as attached to the building or anything, it's movable, but I believe it is, it can be moved, changed.

Q. So the head of the gurney could be raised?

A. That's my belief. If it can't be I [52] know we can get one that does.

Q. If the anesthesiologist were to decide that it would be in the best medical interest of the offender to adjust the gurney would the anesthesiologist have the freedom to do that?

A. Yes.

Q. We had talked a little bit about the Methylene blue dye that had been used previously.

A. Yes.

Q. Why isn't that used anymore?

A. The pharmacy we were using would no longer sell it us.

Q. Why is that?

A. They feared exposure and media attention that would hurt their business.

Q. Do you currently use any dye?

A. No.

Q. In the execution of Mr. Bucklew would you anticipate any dye at all would be used?

A. No.

Q. You also indicated that valium is not used anymore. Why is that?

A. Again, our pharmacy no longer is willing to provide that.

Q. And why is that?

[53] A. Again, fear of exposure and fear of media attention.

Q. Do you use any kind of pharmaceutical as a sedative in place of the valium?

A. No.

Q. What about the versed, is versed still used?

A. No, we don't have versed either. Same reason.

Q. Do you use anything in place of the versed?

A. Pardon?

Q. Is anything used in place of versed as a sedative?

A. We have some benadryl that is used for anxiety, that is what we use if they're showing anxiety.

The only other issue we would have is if he was, if he, mental health and him decided he needed something more then we would have to potentially go to our contract provider to get something.

Q. And have someone from the Corizon to prescribe a sedative?

A. Yes.

[54] Q. And the use of a sedative is optional to the inmate, is that correct?

A. Yes.

Q. We had talked about the medical history that's provided to M3 prior to the execution. Can M3 receive additional medical information if he or she believes it's required?

A. Yes.

Q. You had also talked about the process for informal resolution requests and grievances. Is there any change in that policy if it is a condemned inmate, a death sentenced inmate?

A. Not to my knowledge.

MS. COULTER: I don't have any more questions.

MS. NOTTON: No more questions.

MS. COULTER: You have the right to review a transcript of your deposition and check it for error, not error in content but error, transcription errors and then sign it or you can trust that everything's been transcribed accurately and waive your signature.

A. I'll rely on my attorney.

MS. COULTER: So are you choosing to waive your signature?

[55] A. Okay.

(Whereupon, the deposition concluded at 3:15 p.m.)

[1] U.S. DISTRICT COURT
WESTERN DISTRICT OF MISSOURI
(KANSAS CITY)

Civil Docket for Case #: 4-14-cv-08000-BP

RUSELL BUCKLEW

Plaintiff,

vs.

GEORGE LOMBARDI, ET AL.,

Defendants.

VIDEO DEPOSITION OF GEORGE LOMBARDI
Taken on behalf of the Plaintiff
January 24, 2017

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* * *

[18] Adult Institutions and in 1986 I became director of the Division of Adult Institutions and remained in that capacity until I retired in 2005. After I retired in 2005 I did consultant work with the facility for committed youth in Washington D.C. for about three years and then in 2009 I was appointed director of the Department of Corrections by Governor Nixon until I retired on January the 10th of this year.

Q. Are you currently employed?

A. I am not.

Q. So thank you very much for that comprehensive summary and I just have some followup questions regarding some of the positions that you described.

Can you generally describe your responsibilities when you were the program coordinator, I believe you said it was the Renz Prison Farm?

A. Yes. Actually there were groups of inmates at that time who were denied parole hut were flattening out the time as we used to call it which meant that they were denied parole but they still, you know, they're finishing their time, at that time it was seven-twelfths, in other words

* * *

[32] [redacted]

Q. Are you always present for the actual execution?

A. Yes,

Q. Are you required by law to be present?

A. I'm not sure what the law says about that but I am anyway so it doesn't make any difference. Or was.

Q. You mentioned that you served in this role as director of Department of Corrections until January 10th, 2017 when you retired?

A. Correct.

Q. Why did you retire from that role?

MS. COULTER: Objection, it exceeds the scope of the discovery order.

MR. FOGEL: What part exceeds it –

Why don't we just go of the record for a moment?

* * *

[66] your understanding that this protocol would be used for upcoming executions?

A. I don't know that, as I said I am no longer the director so I can't predict what the future is regard to that.

Q. Understood. Just asking for your understanding as of January 10th, 2017, that this would be protocol that would be used for executions.

A. That was the protocol that was in place on January the 10th.

Q. Thank you.

A. Predicting the future is not something I can do.

Q. Thank you.

To your knowledge from October 18th, 2013, which is the revision date, to present, were there any executions performed using this protocol?

A. Yes.

Q. Do you recall approximately how many?

A. I believe there was like 19.

Q. And to your knowledge this was the protocol that was used for the most recent execution in the state of Missouri.

A. Yes. For all the executions from the [67] 13th through the last one. From October '13 to the last execution.

Q. So I'd like to ask some questions – strike that.

I want to focus on the first section here, Execution Team Members, and I just want to state at the outset to be clear, I'm not asking for the names of the team members, I'm just asking for their position titles and their functions and I believe that's consistent with *Judge* Phillips' discovery order.

MS. COULTER: I agree.

MR. FOGEL: Thank you.

Q. (BY MR. FOGEL) And the first sentence under Section A, execution team members, it says the execution team consists of department employees and contracted medical personnel including a physician, nurse and pharmacist.

Do you see where I'm reading Mr. Lombardi?

A. Yes.

Q. First beginning with department employees. Which department employees are involved, are on the execution team? Again just talking about the titles, not their names.

[68] MS. COULTER: I'm going to object in that I don't know that he can answer and talk about the department without asking, without disclosing their names. I mean I don't know the answer to the question that you're asking but in the event that it would disclose or lead to the discovery of their identity I object.

MR. SPILLANE: May be I can be of assistance. Are you asking what the designations of the employees are such as NM1, NM2, so forth?

MR. FOGEL: That's a fair point.

Q. (BY MR. FOGEL) So you're referring to Mr. Lombardi's interrogatory response identified individuals –

MR. SPILLANE: Are you asking what their code names are basically?

MR. FOGEL: Well, why don't we look at the interrogatory.

MS. COULTER: If you know which number that is.

MR. FOGEL: I think it's Exhibit 4.

MS. COULTER: There's a very brief list.

A. Okay.

Q. (BY MR. FOGEL) And I'm looking at [69] this response to Interrogatory 9.

A. Yes.

Q. And at the top of that page it says pursuant to this court's order defendant provides the following general information regarding DOC's, Department of Corrections, current execution team members, and it lists a number of positions. Do you see where I'm looking?

A. I do.

Q. And to your knowledge does this listing of individuals correspond with that first sentence that I read on the open protocol?

A. Yes.

Q. Department employees, contracted medical personnel including a physician, nurse and pharmacist?

A. Yes.

Q. Then it goes on to say that an execution team also consists of anyone selected by the department

director who provides support for the administration of lethal chemicals, including individuals who prescribe, compound, prepare or otherwise supply the chemicals for use in a lethal injection procedure.

Are there any other individuals.

* * *

[74] Q. And of course you have familiarity with where the individual is being executed is physically located.

A. Correct.

Q. Thank you.

And going back to Section A under Execution Team Members of the open protocol it identifies contracted medical personnel including a physician, nurse and pharmacist. Are there any other medical personnel besides from a physician, nurse and pharmacist who would be present?

A. Medical personnel?

Q. Correct.

A. No.

Q. And let's just speak very generally about why to your understanding would a physician be present?

A. Say again.

Q. Why would a physician be present?

A. Because he's the person that examines the individual, prepares the chemicals, it stands on its face exactly what that person does in the protocol.

Q. And could you direct me where in the protocol you're pointing to?

[75] A. Yes. Part B. part C, part D.

Q. So those sections all refer to medical personnel in general.

A. Yes.

Q. My question was specifically regarding the physician. To the extent you understand the differences in the roles between the physician, the nurse and the pharmacist, I'm just asking you to explain what specifically each role does.

A. The physician does B, C and D.

Q. And what about the nurse?

A. The nurse stands by for assistance.

And can perform B, C and D as well.

Q. And the pharmacist?

A. What about them?

Q. What role does the pharmacist handle during the course of executions?

A. Pharmacist supplies the pentobarbital.

Q. So skipping down to section B, preparation of chemicals. Do you see that section Mr. Lombardi?

A. I do.

Q. And do you see B(1) talks about [76] syringes I and 2?

A. Uh-huh. Yes.

Q. Do you know why there are five grams of pentobarbital?

A. Because that's the amount that will make, that will be powerful enough to ensure that the person is deceased according to the physician.

Q. And if you look down at Number 3 it also asks for, it mentions five additional grams of pentobarbital. What is your understanding of why there are five additional grams of pentobarbital?

A. If in fact, to ensure that the person is deceased. If in fact they have not passed then there's a second possibility of adding additional, and that's what that's for.

Q. Do you know what the effects of pentobarbital are on the human body?

A. I know this amount of pentobarbital kills a person.

Q. Do have you any understanding beyond that as to the effects of pentobarbital?

A. No.

Q. Are you aware of any side effects from pentobarbital?

A. I'm sorry?

[77] Q. Are you aware of any side effects from pentobarbital?

A. No.

Q. If pentobarbital is not available, are there any backup chemicals –

A. Say again.

Q. If pentobarbital is not available are there any chemicals that are used in its place?

A. We have not had that issue.

Q. So pentobarbital is the only chemical that is used for lethal injections in the State of Missouri, is that correct?

A. As of when I left on January the 10th.

Q. Okay. Looking down at Section C, the intravenous lines. Do you see that on the open protocol?

A. Yep.

Q. And it says medical personnel shall determine the most appropriate locations for intravenous or IV lines.

Is this the same medical personnel that's referred to above under execution team members?

A. Correct.

[78] Q. What is the point – and it goes on to discuss a primary IV line and secondary IV line. Do you know the point of having both a primary and a secondary line?

A. To ensure that there's an adequate amount of chemical inserted.

Q. So the chemical goes through both IV lines?

A. Right.

Q. Does the chemical go through both lines simultaneously?

A. I don't even know that.

Q. Okay. Have you ever encountered a scenario where the medical personnel could not insert an IV line into the individual?

A. No.

Q. Lower on in that paragraph it says medical personnel may insert the primary IV line as a peripheral line or as a central venous line, it goes on to say providing they have appropriate training, education and experience for that procedure.

What do you understand that to mean when it says appropriate training, education and experience?

[79] A. I think it stands on its face. Just simply that they know how to do that procedure.

Q. Have you an experience where medical personnel were not experienced, did not have the training, education and experience for that procedure?

A. Never.

Q. Why is it important for medical personnel to have appropriate training, education and experience?

A. To ensure that the process is carried out successfully.

Q. And when you say successfully you mean that the individual dies.

A. Correct.

Q. Before inserting the IV lines does any medical personnel check the individual's airways?

A. I don't know that.

Q. Do they check blood pressure?

A. I don't know that.

Q. Before inserting the IV lines do they to your knowledge do any other check of the heart rate or any other –

A. The heart rate is monitored.

[80] Q. It's an EKG?

A. Right.

Q. Are there any other evaluations the medical personnel does immediately before they introduce the IV lines into the individual?

A. I'm not aware.

Q. So we were talking a little bit earlier about the monitoring of the prisoner and I believe that's addressed at Section B of the open protocol, that's the page ending in 920, or excuse me, 020. Do you see that at the top of the page?

A. Yes.

Q. And number 1 says the gurney shall be positioned so that medical personnel can observe the prisoner's face directly or with the aid of a mirror.

What is a gurney?

A. It's the hospital bed.

Q. And is the individual situated on the gurney during the execution?

A. Yes.

Q. And how are they situated on that gurney? Are they sitting –

A. They're laying down on the gurney.

Q. So they're laying flat on the gurney.

[81] A. Yes.

Q. Is the gurney horizontal?

A. What do you mean horizontal?

Q. Is it, and I'll represent for the record that I'm using my hand to indicate a horizontal straight line.

A. Yes. It's not vertical, yes, it's horizontal.

Q. Is the gurney at all adjustable, in terms of could they adjust the angle?

A. I don't know.

Q. In your experience have all executions taken place where the gurney is lying flat?

A. Yes.

Q. If an individual had a specific condition that made it uncomfortable or painful for them to lay in a flat position do you know if a gurney can be adjusted such that they wouldn't be lying flat?

A. I don't.

Q. Do you know at what point in the execution process the individual is strapped – are they strapped to a gurney?

A. Yes.

* * *

[90] A. Yes.

Q. But when you said the director you're referring to yourself, correct?

A. Yes.

Q. So in your judgment what would be an appropriate amount of time of waiting –

A. I would listen to what the physician had to say about the need.

Q. Do you have an independent opinion of what would be a sufficient amount of time?

A. No.

Q. Going down to E(5) where it says at the conclusion of the process and after a sufficient time for death to have occurred medical personnel shall evaluate the prisoner to confirm death.

Similar question, what is your understanding of a sufficient time for death to have occurred?

A. The heart monitor being flatlined is the way in which the physician makes that determination.

Q. In your judgment what do you think constitutes a sufficient time for death to have occurred?

[91] A. Say that again.

Q. Is 10 minutes a sufficient amount of time for death to have occurred?

A. I leave that up to the physician to share that, what [redacted] thinks.

Q. Do you have an opinion as to what a sufficient time for death to occur is?

A. No. As I said, it has never occurred that we had to use a second group of drugs.

Q. I understand.

A. Ever.

Q. Just asking generally about what you determine to be a sufficient amount of time.

A. Right.

Q. Skip down to section F and particularly F(4). It's the last sentence that begins if any irregularities are noted.

A. Yes.

Q. And it goes on to say that DAI, I believe that's the director of adult institutions.

A. Correct.

Q. Division director shall promptly determine whether there were any deviations from this protocol and shall report his findings to the department director.

[92] A. Correct.

Q. What irregularities would be noted during an execution?

A. There have never been.

Q. That wasn't my question. My question is what irregularities is this referring to?

A. It would be hypothetical for me to guess what that would be and I'm not going to do that.

Q. If somebody had, if the IV was not properly inserted, excuse me. If the administration of the intravenous lines into the individual's IV – excuse me, strike that.

If the IVs were not properly inserted would you consider that an irregularity?

A. Ultimately it would have to be or otherwise it wouldn't be a successful execution, so that seems irrelevant.

Q. That was my question. My question is what do you understand irregularities to mean?

A. I don't know because it never has occurred, but that's the answer I have. Period.

Q. Under the protocol what happens if irregularities are reported to you?

A. The DAI director should report to me [93] as the department director.

Q. And then what do you do with that information?

A. I would keep it, we would have it in that recorded data that the chemical log and so forth. Never happens, so I've never had to do it.

Q. Am I correct then in your testimony, your testimony is in your experience you've not experienced or seen any irregularities?

A. Never.

Q. Do you, to your knowledge are there any protocols in the event that an irregularity does arise?

A. Say again.

Q. Are there any protocols in the event an irregularity arises during the execution?

A. This is the protocol.

Q. So what is your understanding if an irregularity arises, what protocol does the execution team follow?

A. They know whatever the irregularity was, DAI director reports it to the director.

Q. But I'm talking about at that very moment in time.

Let me be more specific. If the [94] inmate responds negatively to the drugs, the pentobarbital or one of the sedatives, what protocols are in place to address that?

A. It's never happened, I don't anticipate it happening so I don't have it. I don't have an answer to that because it's never happened and I don't anticipate it happening.

Q. That's a little bit different than the question I'm asking, but just to be clear is your answer then that you're not aware of what protocols would be in place in that situation?

A. Well, I think it goes back to if in fact the first set of, if the first injection of the drug in some way did not in fact render the individual deceased then an

irregularity would be yes, we ought to do the second and that would be the irregularity.

Q. Sure. And the irregularity in that circumstance is the individual did not die right away at some point after five grams were administered and then you administered the second five grams of pentobarbital.

A. Correct.

Q. So my question is in a circumstance where the individual reacts negatively to the drugs [95] that are administered, negatively not being they don't die, just there's some adverse health reaction, what protocols are in place to deal with that situation?

A. It has never happened, we don't have a protocol for it. I don't anticipate it ever happening.

Q. What if a prisoner begins convulsing during the execution process?

A. It's never happened and it won't happen, I don't believe. This is a powerful drug that is injected, if not the first time the second time and there's just no way a person could live through that. According to my –

Q. My question is not necessarily whether they live or die, I'm just talking about their reaction to the drug.

A. I have nothing for you in that answer. Nothing.

Q. You're not aware of any protocols.

A. Nothing.

Q. If the individual starts choking during the administration of the chemicals, are you aware of any protocols in place to deal with –

A. That's never happened and no, we [96] don't have anything. I would rely on the physician to deal with that issue.

Q. You're not aware of any protocol to deal with it?

A. No.

Q. If a vein blows during the course of the administration you're not aware of any protocols in place to deal with that?

A. No.

Q. Who makes the determination to stop an execution?

A. The only thing that stops an execution is if there's a stay that occurs.

Q. Aside from the stay are there any protocols in place to stop an execution?

A. Absolutely not.

Q. So we talked about some medical personnel who are present for the executions, correct?

A. Yes.

Q. Are you aware of a protocol for the non-anticipation by health services staff members?

A. Say again.

Q. The protocol titled – rather than test your memory why don't I show you the document.

[97] (MARKED PLAINTIFF'S EXHIBIT NO. 8)

Q. (BY MR. FOGEL) Mr. Lombardi, if you could take a moment just to review that document.

A. (Reviewing document). Okay.

Q. Are you familiar with this document?

A. No, not – vaguely. Not my policy, it's the DAI's policy.

Q. Okay. And that's the director of adult institutions?

A. Right.

Q. And I'll represent to you this is a document that was produced to us by defendants in connection with this litigation and just focusing on the line where it says purpose, it says this procedure has been developed to ensure health services staff members do not participate in offender executions.

Are you familiar with that policy?

A. Generally, yes.

Q. Could you explain what that policy is?

A. Yeah. That means people that work for us in health services will not be involved in it.

Q. And when you say us are you saying

* * *

[118] Q. Prior to Mr. Bucklew's scheduled execution in 2014 are you aware of any special steps that were taken in the days or weeks leading up to the execution to monitor his condition?

A. I don't know that.

Q. You don't recall whether that happened one way or the other?

A. I don't. Exactly.

Q. Do you know what a DNR is?

A. Say again.

Q. A DNR. Do you know what that is?

A. Yes. Do not resuscitate.

Q. And what does that mean, or what is a DNR?

A. An individual or a family member for somebody that's incapacitated indicates that no extraordinary measures to keep a person alive when they are in fact, have an illness of such grievous content that they're going to pass away.

Q. Is part of the protocol prior to an execution to give an inmate an option to sign a DNR?

A. Not to my knowledge.

Q. Do inmates sign DNRs?

A. Yes.

[119] Q. They do?

A. Yes. Who is in charge of – strike that.

To your knowledge did Mr. Bucklew sign a DNR?

A. I have no idea.

Q. Does the Department of Corrections force inmates to sign DNRs?

A. No.

Q. Is lethal injection the only manner allowed under Missouri law to inflict the punishment of death?

A. No, the statute also indicates gas could be used.

Q. Any other manners besides gas and lethal injection?

A. No.

Q. Does the state of Missouri have a lethal gas protocol?

A. Does not.

Q. Do you know why it does not?

A. Because we have pentobarbital as the use.

Q. Can you explain why the use of pentobarbital means that the state should not have [120] a lethal gas protocol?

A. The lethal gas protocol, the lethal gas situation is very controversial, no other state has used it to my knowledge. I do have some knowledge of the old gas chamber, when the first individual was to be executed we put smoke in the gas chamber and it all came out and would have killed everybody present. It is a very volatile and difficult situation and we would never consider it, especially when we have pentobarbital which works rapidly and easily.

Q. Does the state of Missouri have a gas chamber?

A. No. Not anymore.

Q. When was the last time somebody was executed by gas?

A. I don't know, the 30s.

Q. Has the state of Missouri to your knowledge decreed a lethal gas protocol at any time?

A. Absolutely not.

Q. Has the State of Missouri investigated whether it should adopt a lethal gas protocol?

A. Whether what?

[121] Q. They evaluated whether it should adopt a lethal gas protocol?

A. No.

Q. Why is the state taking the position that lethal gas is not feasible?

A. I think I shared that with you just a moment ago. Because it's dangerous, nobody's ever used it and

our own experience in the first execution in terms of testing the chamber indicated that everybody present would have been killed. So it was not used for the first execution either.

Q. When you say the first execution what are you referring to?

A. I mean in modern times, I'm talking about since the death penalty became constitutional again and that was Tiny Mercer was the inmate and he was in fact executed by lethal injection.

Q. Do you recall what year that was, or approximately?

A. No. It's available though.

Q. Okay. And is it your testimony that the state of Missouri tested using lethal gas as an option at that point in time?

A. We tested the chamber.

Q. The chamber.

[122] A. Yes.

Q. And the outcome of that test was that lethal gases would leak out through the chamber.

A. Correct.

Q. Did the state of Missouri evaluate – let me back up.

Is that the only reason why the State of Missouri does not use the gas chamber?

A. No. Because there's another alternative with lethal injection which works safer, quicker, so that was the option.

Q. Has the state of Missouri to your knowledge looked into properly sealing the gas chamber such that any gas would not leak out outside the gas chamber?

A. No.

Q. Does that gas chamber still exist today?

A. Yeah, I think parts of it are in the old penitentiary.

Q. Is the old penitentiary, I'm sorry if I'm asking an obvious question –

A. Missouri State Penitentiary which is no longer part of the Department of Corrections.

Q. What is used in that building today?

[123] A. I'm sorry?

Q. What is that building used for today?

A. Tours.

Q. Are there any other gas chambers in the state of Missouri?

A. I have no idea but I don't think so.

Q. Maybe I should be a little bit more clear. Any gas chambers in any state facilities throughout the state of Missouri to your knowledge?

A. Oh, no. Absolutely not.

Q. Does the state of Missouri have a protocol in place in the event that it is determined that lethal injection is not a viable form of execution?

A. No.

Q. To your knowledge what would happen in that circumstance?

A. Say again?

Q. If it was determined for some reason that lethal injection was not a proper, or viable means to execute somebody what would happen in that circumstance?

A. That's a hypothetical and I have no idea, I'm not going to answer that.

Q. Has the Department of Corrections [124] explored the possibility of alternative forms of execution?

A. No.

Q. Does the state of Missouri look to other states for guidance in its execution protocol?

A. On the contrary, states have looked to us for protocol possibilities.

Q. But has the state of Missouri to your knowledge looked to other states for guidance on its execution protocol?

A. No.

(MARKED PLAINTIFF'S EXHIBIT NO. 9)

Q. (BY MR. FOGEL) Mr. Lombardi, I'm showing you a document, I'm sorry, you've just been handed a document that's been marked Plaintiff's Exhibit 9. Just take a moment to review the document and familiarize yourself with it.

A. Okay.

Q. Are you familiar with this document?

A. I am not.

Q. Do you know what a Fiscal Estimate Worksheet is?

A. Nope.

Q. You see in the top right there's a [125] bill number and it says HB, as in boy, 2082?

A. Yes.

Q. Do what you know that means, or refers to?

A. I would assume it means House Bill 2082, whatever that is.

Q. Do you know what House Bill 2082 is?

A. No.

Q. Does the Department of Corrections at the time that you left your role as director, does the Department of Corrections have authority to consider alternative means of execution?

A. Say that again.

Q. Does the Department of Corrections have the authority to consider alternative means of execution beyond lethal injection?

A. No.

Have a what again?

Q. Does it have authority to consider alternative means of execution?

MS. COULTER: I'll object to the form of the question. I think it's vague in terms of you don't know from whom the authority would come, if that makes any sense.

* * *

[130] Q. You don't know what the state would do?

A. I don't know.

Q. Do you know how much it costs to execute somebody by lethal injection?

A. I don't have that figure off the top of my head but it is available.

Q. When you say it's available –

A. I mean there are figures –

Q. There are figures out there.

A. That question has been asked by members of the general assembly and the Department has had to provide that information.

Q. It's publicly known, okay. Do you know the cost of lethal injection as it relates to cost for lethal gas execution?

A. Of course not. I have no idea.

Q. I have no further questions at the moment for you.

A. Thank you.

MS. COULTER: I don't have any questions. I think he'll waive signature.

MR. FOGEL: That's fine. And pursuant to our discussions this transcript will remain confidential – highly confidential for [131] certainly the next 10 days and then we will confer within that process.

MR. SPILLANE: The way I define it it's not 10 days from now but 10 days after receipt.

MR. FOGEL: Thank you for clarifying and then after receipt –

MS. COULTER: We were kind of talking about, if you all are requesting a draft we would determine the rest as in the receipt of the final deposition. I mean that's how we would interpret it. Just want to make sure there's no ambiguity there.

MR. FOGEL: We're in agreement.

With that I think we're done. Mr. Lombardi thank you very much for your time.

VIDEOGRAPHER: It's 12:41. We're off the record at the end of our tenth media and the conclusion of our deposition.

* * *

[1] IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF MISSOURI

No. 4:14-CV-8000-BP

HIGHLY CONFIDENTIAL

RUSSELL BUCKLEW,

Plaintiff,

vs.

GEORGE LOMBARDI, *et.al.*,

Defendants.

DEPOSITION OF ANNE PRECYTHE
TAKEN ON BEHALF OF THE PLAINTIFF
February 22, 2017

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* * *

ANNE PRECYTHE,
of lawful age, produced, sworn and examined on behalf of the PLAINTIFF, deposes and says:

(The deposition began at 9 a.m.)

EXAMINATION

QUESTIONS BY MS. NOTTON:

Q Good morning. Thank you for being here this morning.

I am Susan Notton with Sidley Austin. This is my colleague, Reachel Bimmerle, and we represent the Plaintiff in this matter, Mr. Russell Bucklew.

If Defense counsel wouldn't mind introducing?

MS. COULTER: Caroline Coulter on behalf of the Defendants.

MR. HANSON: David Hanson on behalf of the Defendants.

MR. SPILLANE: Mike Spillane on behalf of the Defendants.

[7] BY MS. NOTTON:

Q And if you wouldn't mind introducing yourself on the record also, please?

A Anne Precythe, Director of Corrections, State of Missouri.

Q Thank you.

I'm going to hand you a document this has been marked as Plaintiff's Exhibit 31. Are you familiar with this document?

A No.

Q Well, I will represent to you that this is a deposition notice and that you are here today pursuant to that notice, is my understanding.

MS. COULTER: Our office would have accepted service on her behalf, so she may not have seen it before.

BY MS. NOTTON:

Q Have you been deposed before?

A No.

Q Okay. Well, I guess I will give you some ground rules then. So, throughout today's deposition I'm going to assume that you understand what I'm asking you, unless you tell me otherwise.

A Okay.

Q So, if you need me to clarify anything, please, just let me know.

I will wait to ask another question till you're done [8] answering. If you don't mind not answering till I'm done asking the questions, so we can have a clean record.

And then, please, also try to always give a verbal response so that the court reporter can get it on the record.

And we can always take a break if you need to so, please, just let us know.

What did you do to prepare for today's deposition?

A Met with Caroline and Mike on Thursday morning.

Q Okay. How long did you meet with them for?

A Twenty minutes.

Q Okay. Have you met with anyone else in preparation for the deposition?

A No.

Q Have you spoken to anyone else besides counsel, such as Mr. Bucklew?

A No.

Q How about any of Mr. Bucklew's treating physicians?

A No.

Q Any of the other Defendants?

A No.

Q Okay. Did you review any documents?

A No.

Q Have you reviewed any transcripts from other depositions?

A No.

[9] Q Any other preparation?

A No.

Q Have you reviewed the complaint in this case?

A No.

Q You indicated that you've never done a deposition before. Have you ever testified at a hearing?

A Yes.

Q Can you describe that?

A I was a probation/parole officer in the State of North Carolina, so I testified in many probation violation hearings, parole violation hearings. And then I also testified as Director For Community Corrections in North Carolina at the administrative office of the hearings O-A-H office, the administration hearings, in personnel matters.

Q Have you ever been a defendant in a lawsuit before?

A No.

Q Have you ever been subject to any formal/informal complaints related to your work with inmates?

A No.

Q Any complaints whatsoever during your time with the North Carolina Prison System?

A No.

Q And how about so far as director here?

A No.

Q Can you walk me through your education after high [10] school?

A I completed four years at the University of North Carolina in Wilmington and received a bachelor of arts degree in psychology.

Q And you were appointed Director of the Missouri DOC in January; is that correct?

A Correct.

Q And what did you do prior to your appointment?

A I was Director For Community Corrections, which is probation and parole, in the State of North Carolina.

Q And can you describe, generally, what your responsibilities were in that role?

A So, my responsibilities were overseeing the 2600 staff that handled supervision of 100,000 offenders in the communities of North Carolina that were under jurisdiction from the courts and the parole board. So, I did not have direct responsibilities in prisons.

Q Have you ever had direct responsibilities in the prisons before your current role?

A No.

Q Were you also appointed to the National Institute of Corrections and Advisory Board?

A Yes.

Q Can you describe what is that?

A I served as the community corrections person on that [11] particular board. And we would meet once, maybe twice a year, to discuss national issues as they related to juvenile jails, adult prisons, community corrections and just the national trends, the national movements about what went on in those different entities.

Q Are you still involved in that?

A I am.

Q And how long do you expect that to last for?

A I have no idea.

Q Okay. You are currently director of the Missouri DOC, correct?

A Correct.

Q Can you describe your responsibilities as director?

A My responsibilities as director are to oversee the Director for Adult Institutions, as well as the operations that happen within our prison system, the personnel aspects that go along with running a department, as well as the legal aspects. It's overseeing all of the operations and having an impact on the probation and parole processes that happen in working in conjunction with the parole board.

Q Have you changed the reporting structure at all since arriving?

A I have named a deputy director, Matt Sterm, and that's the only change I've made at this point.

Q Do you anticipate making any other changes to the [12] reporting structure?

A Yes.

Q Do you have a sense of what those will be?

A No.

Q Do you have any medical training?

A No.

Q Have you ever attended medical school?

A No.

Q Are you a chemist?

A I am not.

Q A biologist?

A I am not. That's why I as psychology major.

Q Does North Carolina have the death penalty?

A We do.

Q Is it still in use?

A There's been a moratorium in place since, I believe, 2006.

Q Do you know if they use lethal injection?

A They do.

Q Do you know if they use any other methods of execution?

A I do not.

Q Were you ever involved in the execution process in North Carolina?

A I was not.

Q Are you aware of any complications with executions in [13] North Carolina?

A I am not.

Q Are you aware of any executions ever needing to be halted in North Carolina?

A I am not.

Q Does the State of Missouri have an execution protocol?

A Yes.

Q What is your understanding of an execution protocol?

A What, specifically, are you asking? What the process is?

Q Or just what you think its purpose is?

A Are you asking what is the purpose of the – an execution?

Q Of an execution protocol.

A It's to make sure that there's a uniform, consistent process. So, that it's administered properly and safely and humanely each and every time.

Q Okay. Do you know what an open portion protocol is?

A No.

Q How about a closed portion protocol?

A No, I think I have heard those words, but without looking back at notes or something, I don't recall exactly what those were.

Q Are you familiar with Missouri Execution Protocol?

A Yes.

[14] Q I'll hand you a document. I've handed you what's been previously marked as Plaintiff's Exhibit 5.

A Uh-huh.

Q Have you seen this document before?

A Yes.

Q Can you, generally, describe what it is?

A It describes who's a part of the execution team, how the chemicals are prepared, the medical procedure that is established for doing the IV, and then how the process is – the actual execution procedure itself from the time that the chemicals are administered.

Q If you look at the bottom on the second page there's a date; what is that date?

A October 18, 2013.

Q And to your knowledge is this the most current protocol?

A Yes.

Q Are you familiar –

A Wait just a minute.

Yes.

Q Are you familiar with what drugs are used during an execution in Missouri?

A Yes.

Q What are those drugs?

A Phenobarbital.

[15] Q Is that it?

A And saline.

Q Is that it?

A To my knowledge, yes.

Q Do you know what effect phenobarbital has on the human body?

A Stops the heart and the – no.

Q It's okay if you don't know. That's fine.

A Let's just say no.

Q Okay. Are you aware of any studies considering how phenobarbital might affect people differently?

A No.

Q Are you aware of any side effects of phenobarbital?

A No.

Q If phenobarbital is not available, do you know whether the DOC has any other protocols in place for that?

A No.

Q Do you know what the DOC would do in that instance?

A No.

Q To your knowledge is this the protocol that Missouri intends to use for upcoming executions?

A Yes.

Q Do you know whether executions have been performed using this protocol?

A Yes.

[16] Q And about how many?

A I don't know.

Q More than five, would you think?

A Yes.

Q More than ten?

A I don't know. I haven't been here in Missouri, so I can't speak to prior executions.

Q Understood.

Was it used in the most recent execution?

A Yes.

Q And when was that?

A January 31, 2017.

Q And were you director at that time?

A I was.

Q Is that the first execution you experienced here in Missouri?

A Yes.

Q Is that the only one that you've experienced so far?

A Yes.

Q Are you aware of any executions since this protocol was put in place that did not follow it?

A No.

Q Without providing any names or identifying information, can you, generally, describe the composition of the execution team?

[17] A It's made up of about 50 members of employees within the Department of Corrections.

Q And can you, generally, describe the functions of the different members of the execution team?

A They – it's an extremely detailed process. They range from patrolling the facility to responding to protesters, to parking, to parking for the state's witnesses, the victim's witnesses, or excuse me, state's witnesses, the – yeah, the victim's family, and then the offender's family and separating people, staying with those three groups the entire time to facilitate the movement of the officials during the process.

It consists of members that are with the offender during the entire process. It's a very – it's a very detailed process that – I mean, it takes a large number of people to make sure that everything runs as planned.

Q Understood.

Do you know whether there are any medical team members on the execution team?

A There are.

Q Do you know about how many?

A Two.

Q And are they in the execution room during an execution?

A What do you consider the execution room?

[redacted]

[18] [redacted]

Q And do you know what the function of the medical team members are?

A Yes.

Q Can you describe that?

A One of them is to monitor the machine that the inmate is hooked up to and then one is to administer the IV.

Q And what is the purpose of monitoring?

A To check the vitals of the inmate during the procedure and to ensure that the IV is established safely.

Q On the first page of the open portion protocol it talks about how the department director can decide who's on the [19] execution team. In the very first paragraph.

A Okay.

Q Do you anticipate making any changes to the execution team for upcoming executions?

A Not at this time.

Q On the second page it discusses the process of injecting the phenobarbital and the saline solution under Section E. And in the fourth paragraph there

it says that the inmate will be checked following a sufficient amount of time for death to occur. What do you interpret that to mean?

A Five minutes.

Q Exactly five minutes?

A From the time that the – I know what the protocol is and its five minutes from the time that the initial solution is administered.

Q Okay. On the very bottom of that same page, under Section F, paragraph four, it talks about a sequence of chemicals and chemicals log. Do you see that?

A Uh-huh.

Q It also notes that there – the possibility of an irregularity being on one of those forms. Do you see that?

A Yes.

Q What do you understand an irregularity to be?

A I don't know.

Q I've handed you what's been previously marked as [20] [redacted] Are you familiar with this document?

A No.

Q Have you ever –

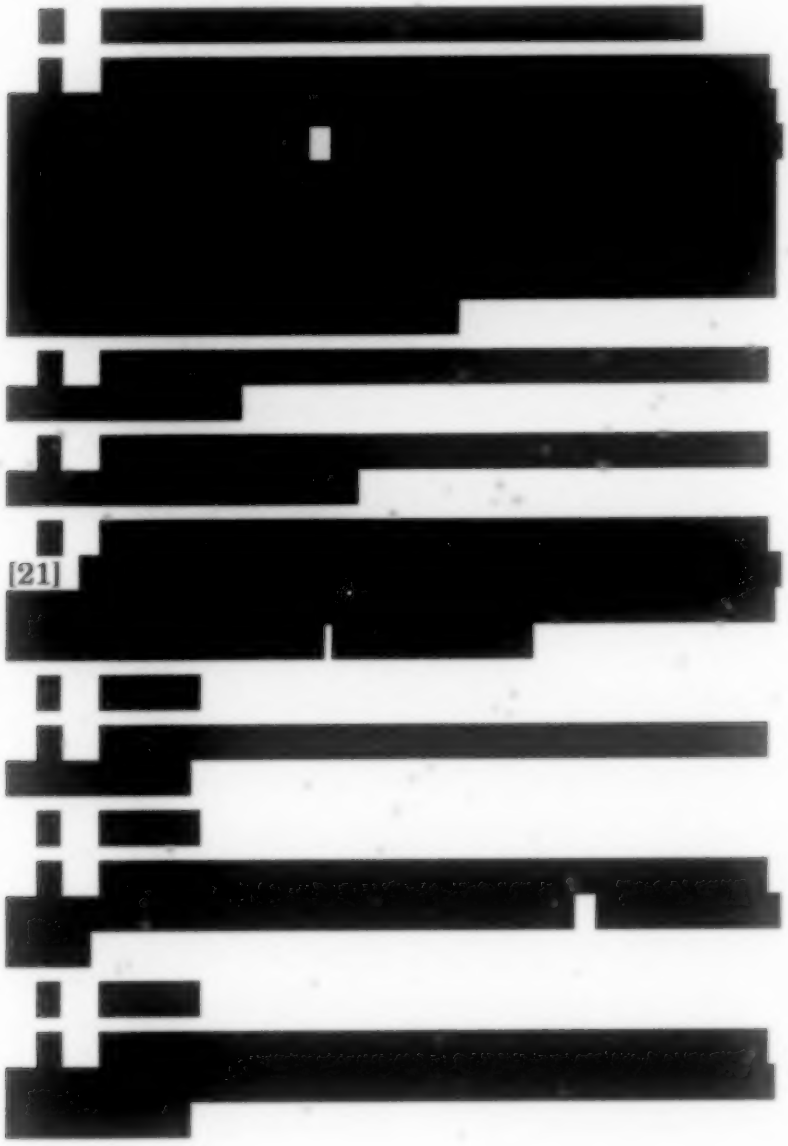
A Oh, not this document.

MS. COULTER: If she could have a minute. Look through the pages.

THE WITNESS: Okay. So, this is the document that lays out the execution process, the team and what

everybody's responsibility and processes are. So, yes, I am familiar with this.

BY MS. NOTTON:



[21]

[redacted]

Q Do you know who would make that decision?

A No, that's the court process. No.

Q Are there any circumstances under which you might be prepared to halt an execution?

A No, unless there were issues in the facility, something came to light that was, I mean, needed to stop the process. I mean, then you have to make that decision, but if there are no [22] legitimate reasons to stop, we wouldn't stop the process.

[redacted]

Q Do you know what might cause a delay in the preparation process?

A It could be that there was trouble establishing the IV line in the – in the inmate.

My understanding is if inmates are known to be drug users their IV might not be stable. I mean, their veins may not be stable. So, I mean, it, again, dealing with people, you don't know exactly what could possibly come up. So, you have to be prepared to respond accordingly.

Q Have you seen or heard of that occurring under this protocol before?

A The only protocol that I'm aware of is that in incidences in the past if it's a regular drug user the veins – the typical veins have been difficult, but there's – they have always been able to establish the IV, it might have just taken longer than normal, that's the only thing that I've heard.

Q Do you know whether it's possible to alter the protocol in any way?

A For who to alter the protocol?

Q How about for you to alter the protocol?

[23] [redacted]

Q Do you foresee making any changes to the protocol that would impact upcoming executions?

A No.

Q If you could turn to page 62, please.

Earlier you indicated that phenobarbital and a saline solution were used during the execution; is that correct?

A Uh-huh.

Q Are you familiar with the document you're looking at on page 62?

A I've not seen it before.

Q Okay. Its titled chemical log. And it notes phenobarbital at the top. Do you see that?

A Oh-huh, I do.

Q And then it also notes Valium underneath that. Do you see that?

A I do.

Q Do you know if Valium is used during an execution?

A No, I don't.

Q You don't know?

A The only use that I'm – I think Valium is used if the [24] person previously had requested or wanted a sedative prior to the time leading up to the actual execution.

Q Okay. What about Versed, the next chemical listed?

A I'm not familiar with that.

Q Okay. And how about lidocaine?

A That's one that I had heard in the past may be had used, but I'm not familiar with that.

Q Okay. So, to your knowledge it's only phenobarbital and a saline solution that are used during the execution and then the possibility of a sedative; is that correct?

A That is correct.

Q Do you know whether they would give an inmate a sedative without the sedative being requested?

A What?

Q Let me try again.

Do you know whether an inmate might be given a sedative even if the inmate doesn't ask for it?

A No.

Q You indicated earlier that an inmate is monitored by the execution team medical members; is that correct, during –

[25] A Correct.

Q Okay. Are there nonmedical members of the execution team?

A Yes.

Q Do you know what their role is?

A Yes. So, remember the execution team consists of about 60 people.

Q Right. So, let's narrow that a little bit.

A Okay.

Q Okay. Anything else that you know of?

A (Indicated no.)

Q Do you know whether inmates are evaluated in any way [26] prior to an execution?

A I know there's a mental evaluation prior to, and that's the one that I'm familiar with.

Q Can you describe that for me?

A No.

Q Do you know whether you're involved in that process at all?

A I send the letter to the governor's staff to let him know that the inmate is competent and able, that there are no mental health deficiencies that would prohibit.

Q And what would you look at to inform that decision?

A The reports that were given to us by the facility staff, who evaluate the inmate.

Q And can you describe a little bit the facility staff that you're referring to?

A No.

Q Do you know at all whether it would be medical staff or nonmedical staff?

A Yes. I didn't know we could be that broad. It would be medical staff and psychological staff, mental health evaluators.

Q And do you know whether that would be the medical execution team members that would do that or would it be the general treating physicians?

A I would assume it would be the general treating [27] physicians in the facilities, because the offender is not at the actual location where the execution takes place until a matter of days beforehand. So, it would be at whatever facility they were currently housed.

Q So, then would it be fair to say that that evaluation is done more than just a couple days in advance?

A Yes.

Q Do you know whether there's a process in place to prepare a prisoner for execution?

A I do not know for a fact that there is. I cannot describe what that would be.

Q Do you know whether an inmate is evaluated medically before an execution to determine whether they're fit?

A I do not know.

Q If you could turn to page 58. It doesn't actually have a 58 on it, but it's between 57 and 59.

A Oh, okay.

Q Have you seen this document before?

A I have not.

Q At the top it says a pre-execution summary of medical history; is that correct?

A Yes.

Q Do you know what something like this might be used for?

A Yes.

Q Can you describe that?

[28] A It appears to me it would be used to determine someone's medical history prior to an execution, since its included in an execution packet.

Q Do you know whether this is given to the execution team?

A I would think that it is.

Q Okay. Do you know who might fill it out?

A I do not. I would think that it would be filled out prior to him getting to – I guess, my thought process here is that it's two different processes. There's a process leading up to when he goes to the facility for the execution, but I do not necessarily consider what is happening there part of the execution team, because the execution team to me is isolated to the specific incident. So maybe I'm not following some of this.

So, this would all be part of the packet. So, yes, it would seem to me that this would be completed by physicians at the facility where the inmate is currently located prior to being moved to the facility where the execution will take place.

Q Okay. Do you know whether the general, treating physicians are able to participate in an execution?

A They do not.

Q Okay. But they can still fill out this form, to your knowledge?

A I would say that they're the ones who fill this out. I'm not familiar with anybody at the prison where the execution [29] occurs filling out this form. I have no knowledge of that.

Q Okay. So, is it fair to say then that you don't know who would fill out this form?

A I would agree with that.

Q Okay. And is it also fair to say that you are not sure who would get this form?

A I am good with that too.

Q Do you know if any additional evaluations are performed prior to an execution?

A I do not.

Q Prior to an execution, so before the protocol would be initiated, do you know who's involved in an inmate's medical care?

A I do not have the specifics on that.

Q Would that be Corizon staff members, to your knowledge?

A Yes.

Q Do you know whether the Corizon staff members are facility specific?

A I do not.

Q So, for example, would the same doctors provide care at Potosi as at the ERDCC?

A I do not know.

Q Okay. Do you know at what point the execution protocol is considered to be started such that the medical or treating physicians would no longer be involved in an inmate's care?

[30] A No.

Q Do you know whether the regular treating physicians would still provide care on the day of execution at all?

A I don't know.

Q Do you know whether there's any restrictions on sharing information between the regular Corizon treating physicians and the execution team members?

A I don't know.

Q Do you know when the last time an inmate sees a doctor before an execution?

A No.

Q If you doubt an individual's competency to be executed medically or otherwise, what would you do?

A I don't know.

Q Is it fair to say that you don't know whether the execution – the medical members of the execution team evaluate the inmate at all?

A Correct, that's fair.

Q And you don't know what information is given to the medical members of the execution team?

A I do not.

Q Do you know if they are allowed to ask for additional information, if they want it?

A I do not.

Q Do you know whether you would delay an execution if a [31] medical team member asked for additional information?

A I do not.

Q What about if a medical team member thought that a prisoner was not fit to be executed?

A I don't – the med – I don't know exactly how to respond to that. The medical team members that are there do not have enough information to make a determination if somebody's fit.

Q So, that determination is made in advance of when the medical execution team members would see the inmate; is that correct?

A I would assume so.

Q Do you know what cavernous hemangioma is?

A No.

Q I will represent to you that it's a condition where blood vessels form benign tumors.

Mr. Bucklew suffers from this condition. Do you know who Mr. Bucklew is?

A I do not.

Q I will represent to you that he is the Plaintiff in this matter.

So, I will assume then that you have never seen Mr. Bucklew?

A I have not.

Q Or spoken to him?

[32] A I have not.

Q Did you learn about Mr. Bucklew at some point?

A When I found out I was being deposed.

Q Are you aware that he has tumors in his airway?

A I do not.

Q Are you aware that he experiences bleeding?

A No.

Q Are you aware that he's given medical supplies, such as gauze, to deal with that bleeding?

A Nope.

Q Are you aware that the Defense's expert has concluded that he has a Mallampati four airway?

A No.

Q Do you know what that means?

A I do not.

Q Do you know whether an inmate has ever had this condition before?

A I do not.

Q How about a death – an inmate on death row?

A I do not.

Q Do you know if the department has ever researched whether anyone with this condition has been safely executed?

A I do not.

Q Does the execution team know of Mr. Bucklew's condition?

[33] A I do not know.

Q Do you intend to make them aware of his condition?

A I do not.

Q Do you know whether the execution team will be able to see Mr. Bucklew in advance of the execution?

A They would not. I do not.

Q You do not know or they would not see him in advance?

A Who, specifically, are you talking about on the execution team? Because it's – I mean, there are a lot

of people involved. So who, specifically, are you talking about?

Q So, my focus would be on the members that are actually administering and involved in the room during the execution and helping to carry it out.

A And none of those people will see any inmate until the time of the execution.

Q So, they would not see an inmate until the inmate was brought into the execution room and put on the gurney; is that correct?

A Correct, yes.

Q And prior to that, they're not provided any information medically or otherwise?

A No.

Q Do you know whether they're provided anything on the day of execution though?

A No.

[34] Q And you don't intend to provide them with anything?

A I do not.

Q So, you couldn't tell them about his bleeding, for example?

A It's not – okay. I don't know how that will be handled.

Q Okay. Do you know whether the protocol can be customized for a particular inmate?

A I'm – would – okay. So, I've been through one execution and it was – it had no complications tied to it in any way, shape or form. So, I do not know what information would be provided to the team, based on

what medical implications may exist within an inmate.

If that were to come, we would have to figure out what are the – what is able to be done or not done. I don't know how we would respond to that until you have a situation in front of you that an execution was ordered to be carried out and then we'd have to figure out what can be done.

So, I mean, you're asking me questions that I don't know, because I don't have a situation that I have had to research and be a part of.

Q So, is it fair to say that you've never had to make that judgment call before?

A Thank you. That is correct.

Q Prior to an execution, do you take any efforts [35] personally to prepare yourself?

MS. COULTER: I'm going to object at this point don't know how that's relevant and to me that's very vague. Prepare herself in what way?

BY MS. NOTTON:

Q Well, answer if you understand.

A I have a – I have a personal view of how I look at that.

Q Can you describe that for me? Are you saying like a personal belief or I'm trying to understand if – what steps you might take to prepare for an execution?

A So, to me an execution from a Department of Corrections standpoint is business. It is our job to carry out the laws of the State of Missouri. If an execution is ordered by the Supreme Court of Missouri my job is to ensure that we do it in the most humane

way possible. And I have complete confidence in every one of my staff members that are involved, as well as medical staff in making determinations if it's appropriate. And that is what we do. And to me it's business and that's my job as Director of Corrections.

Q Understood.

If you are aware that you have an inmate scheduled for execution that might have a unique medical condition, would you prepare in any other way?

A I think doing due diligence and working with medical [36] staff and understanding everything around the case that there is to understand, that would be the additional preparation.

Q So, would that encompass something like researching that unique medical condition?

A That's not my job. I'm not a medical person. My job is to carry out the laws of the State of Missouri.

Q Do you anticipate familiarizing yourself with something like that though, if you were aware that an inmate had a condition?

A I can't speak to that.

Q Okay. Do you know if the protocol calls for any specific steps to be taken if an inmate that is a unique medical condition?

A I am not aware of that.

Q If an inmate were to hemorrhage during an execution, is there a protocol in place for that?

A I don't know.

Q Do you know what you would do?

A I don't.

Q How about if an inmate were to choke during an execution, is there a protocol in place for that?

A I don't know.

Q Do you know what you would do?

A I don't.

Q How about if an inmate were to start to bleed during an [37] execution, is there a protocol in place for that?

A I don't know.

Q Do you know what you would do?

A I don't.

Q How about .if in inmate's vein were to become comprised or to blow, is there a protocol in place for that?

A I don't know.

Q Do you know what you would do?

A I don't.

Q The closed protocol discusses the use of the curtains. Are you familiar with that?

A I am.

Q If an inmate were to start visibly bleeding during an execution, would you close the curtains?

A I would assume so. I'm – I don't know the answers to these questions.

Q If the curtains are closed, would an inmate's attorneys still be able to see the inmate?

A No.

MS. NOTTON: Can we take a short break?

MS. COULTER: Sure.

(Recess.)

BY MS. NOTTON:

Q In one of our prior depositions the warden of the ERDCC indicated if an execution team member is unable to find a vein that he would call you to get authorization for a cutdown procedure. Do you know what that is?

A That is where the – yes, they go below the waist in the groin area, I believe, or lower part of the leg.

Q And what do they do?

A They look for a vein that's available there.

[39] Q Do you know what type of tools would be used for that?

A No.

Q Would you anticipate authorizing something like that it you got a call?

A I would.

Q Okay.

A Yes.

Q Do you know whether execution team members are allowed to opt out for any reason?

A They are.

Q Okay. And would you – and what would you do if an execution team member wanted to opt out?

A I would allow it.

Q Do you require any run-throughs of the execution process in advance of an execution?

A Its not required, but it has been done in the past. And we did one with this past – with Mr. Christianson.

Q Do you expect to do that before each execution?

A Probably, until I'm comfortable with them.

Q And does that go through the current protocol, start to finish?

A Yes.

Q And does it assume that the protocol will go according to plan?

A It would be based on the – the situation that was [40] presented to us.

Q Can you describe what that means?

A So, similar to your request, it would go – yes, it would go as planned based on, yes, the issue and anything that surrounding that particular execution, it would go – the run-through would go as planned.

Q Just to make sure I'm understanding, so it would go as planned, meaning it would assume that the protocol would be able to run start to finish without any issues?

A Correct.

Q Is lethal injection the only manner allowed under Missouri law to inflict the punishment of death?

A To my knowledge, yes.

Q Do you know whether lethal gas is authorized in Missouri?

A I do not.

Q I will represent to you that a Missouri statute does authorize –

A Okay.

Q – both lethal injection and lethal gas.

Does the State of Missouri have a lethal gas protocol?

A Not to my knowledge.

Q Do you know if it ever had a lethal gas protocol?

A I do not.

Q Are you aware of any other states having a lethal gas [41] protocol?

A I am not.

Q Do you know whether the State of Missouri has a gas chamber?

A I do not.

Q Do you know approximately how much it costs to execute an inmate?

A I do not.

Q Can you ballpark it?

A I cannot.

Q When you became director, were you informed about Missouri execution procedures?

A Not about their – when I became director, yes.

Q Okay. And was that focused only on lethal injection?

A That was the process that was planned for that one, yes.

Q For that one, meaning for the execution at the end of January; is that correct?

A Lethal injection is the process used by the State of Missouri and so, that's what we're doing.

Q Have you discussed whether lethal gas might be an available option for an execution?

A I have not.

Q Do you know whether the state has rejected it as an option?

[42] A I do not.

Q Are you aware of any studies conducted by the state in to the viability of lethal gas as an option?

A I am not.

Q Is there a formal process in place for evaluating whether an alternative means of execution might be used?

A I don't know.

Q Do you know how you would go about looking into something like that?

A Not yet. I'd have to rely on my team to help me.

Q Have you ever looked into the possibility of execution by lethal gas?

A I have not.

Q Do you know what factors the state might consider in determining the viability of an alternative means of execution?

A I don't.

Q What is your impression of the feasibility of lethal gas?

A I don't have an impression.

Q Do you know what the State of Missouri would do if lethal injection was considered not a viable option for an execution?

A I don't.

Q Do you know whether the state has ever considered use of something other than a gas chamber?

[43] A I don't.

Q How about something like a gas mask?

A I don't – I don't have any – I don't.

MS. NOTION: Can we take one more quick short break?

MS. COULTER: Sure.

(Recess.)

BY MS. NOTTON:

Q Okay. Just a couple more questions.

A Okay.

Q So that we're clear, do you have the authority to alter or customize the execution protocol in any way?

A I do.

Q And can you explain that?

A As Director of Corrections I would rely on the team that participates in the preparation for execution to help determine if there were any alterations that needed to be made.

Q And can you describe what type of alterations can be made?

A No, because I don't know what alterations would need to be made.

Q So –

A You asked if I could and I said I could. But I can't tell you how it would or why it would, because I don't have any reason to change it.

[44] Q I see.

So, to be clear, you would have the authority to change anything in the execution protocol if you felt it was needed to be changed?

A If I had been advised by my team that changes needed to be made, I would have the authority to make changes.

Q To any of the protocol itself?

A If I were advised by my team that changes needed to be made, not knowing what any of that might be, I have the authority to make changes to the protocol.

Q So, let's say phenobarbital wasn't available, would you have the authority, for example, to use a different drug?

A I don't know that.

Q How about if an inmate suffered from some medical condition that made them prone to bleeding, would you change the protocol in some way?

A I would have to be given information from medical. I mean, that goes into understanding all that goes behind the particular inmate that is preparing to be executed. I mean, that's all part of understanding the case and what goes on behind it and if any alterations needed to be made, but I would rely on my team to provide me with the information.

Q So, in your mind what would you consider alterations?

A I don't know. I have no idea.

Q Do you know when you would make a decision like that to [45] alter the execution protocol?

A No.

Q Do you know whether the inmate would be informed if the execution protocol was altered?

A I don't know.

MS. NOTTON: I have nothing else.

CROSS-EXAMINATION BY MS. COULTER:

Q Director, can you tell us, when did you start with the Missouri Department of Corrections? Do you know which date?

A I was confirmed January 10th.

Q Okay. And which year?

A 2017.

Q Thank you, Director.

And in your capacity as director you've participated in only one execution?

A Correct.

Q And that was the execution on January 31st of 2017?

A Correct.

Q And earlier we heard testimony regarding the execution team. When you answered you described what you had said was a large group of individuals, was that your personal – that's how you interpreted execution team –

A Yes.

Q – to mean?

Okay. Are you aware of the department's protocol, [46] which specifically defines execution team members?

A Yes.

Q Okay.

A I am now.

Q In your definition were you not intending to expand execution team members as defined by the policy?

A Expand, no.

Q Okay. And obviously, the executions take place at a prison?

A Yes.

Q And prisons require staff?

A Yes.

Q And so, there are going to be other individuals at the prison, beyond execution team members defined by policy, that are still going to be participating in some fashion; is that correct?

A Yes.

Q Okay. You were also discussing or we had also asked questions regarding medical information relayed to medical team members. Do you – do you now know whether or not medical information is relayed to the execution medical team members?

A I do.

Q And is the offender's medical information relayed to those medical team members?

A It is.

[47] Q Okay. But you do not provide that information; is that correct?

A I do not.

Q Okay.

A No.

MS. COULTER: I don't have anything further.

MS. NOTTON: I have a few additional questions.

REDIRECT-EXAMINATION BY MS. NOTTON:

Q Can you describe what your understanding of execution team is now?

A Yes. The execution team is the core team, would be the members in the room adjacent to the execution chamber itself.

Q And does that – what does that team consist of? So, no identifying information, but –

A Would consist of medical and nonmedical employees.

Q Okay. And do you know about how many?

A Four people, to my knowledge.

Q You indicated that you now know that medical information is relayed to the execution team; is that correct?

A It is.

Q What medical information is relayed; do you know?

A I do not know, specifically. The medical history form would be given to the one of the medical staff in the room, but I'm not aware of the specific medical information.

Q And are you referring to the form that we looked at in [48] the closed protocol?

A On page 53.

Q Do you know who fills out that form?

A I do not.

Q Do you know if anything else is given?

A I do not.

Q And earlier you indicated that if you were to alter the protocol in any way you would rely on information from your team. Were you referring to the execution team?

A Yes.

MS. NOTTON: No further questions.

RECROSS-EXAMINATION BY MS. COULTER:

Q Director, if you could look at Plaintiff's Exhibit 5 in front of you. And if you could read that first paragraph there?

A The execution team consists of department employees and contracted medical personnel, including a physician, nurse and pharmacist. The execution team also consists of anyone selected by the department director, who provides direct support for the administration of lethal chemicals, including individuals who prescribed, compound, prepare or otherwise supply the chemicals for use in the lethal injection procedure.

Q Okay. And I know we have had a lot of, I guess, questions today on the definition or your interpretation of the definition. Is this – let me ask: When you had previously explained execution team members, your belief is that it is [49] still consistent with the protocol as defined by the execution protocol?

A Yes.

Q Okay. And that would include anyone who would provide direct support for the administration of the lethal chemicals –

A Yes.

Q – correct?

MS. COULTER: All right. I have no further questions.

MS. NOTTON: Nothing else.

Deposition concluded at 10:40 a.m.

* * *

[1] IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF MISSOURI

No. 4:14-CV-8000-BP

HIGHLY CONFIDENTIAL

RUSSELL BUCKLEW,

Plaintiff,

vs.

GEORGE LOMBARDI, *et. al.*,

Defendants.

DEPOSITION OF TROY STEELE
TAKEN ON BEHALF OF THE PLAINTIFF
February 21, 2017

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* * *

[14] for about four years.

Q Can you walk me through the different positions you have had since becoming part of the Missouri DOC?

A I was a correctional services trainee, which did classification. And then that automatically transitioned into a caseworker position. Then I went to a functional unit manager and then promoted to deputy warden and then to warden.

Q When you were promoted to deputy warden, what facility was that at?

A It was at the Southeast Correctional Center in Charleston, Missouri.

Q And how long ago were you in that role?

A (No response.)

Q A while it seems?

A Yeah, I'm trying to think. Approximately 16 years ago maybe, 16, 17 years ago.

Q So, then it was about 16 years ago that you became warden?

A Probably closer to 18 when I started in that position.

Q And where were you warden at?

A I've been the warden at three facilities. Later I was warden at the Southeast Correctional Center, Potosi Correctional Center and current warden at Eastern Regional Diagnostic Correctional Center.

[15] Q Were your responsibilities similar across the three facilities?

A Yes.

Q Can you describe your role and responsibilities as warden?

A It's to, basically, be the overseer of all prison operations either through direct supervision or liaison and then to kind of be an ambassador to the community.

Q And how long have you been warden at – can I call it the ERDCC?

A Yeah.

Q How long have you been warden there?

A Little over two years.

Q And how long were you warden at Potosi?

A Approximately between four and five years.

Q So, then about ten years or so at the Southeast Correctional Center, right?

A No. As, actually, as a warden I was there for about another four to five years.

Q Okay. As warden at the ERDCC who do you report to?

A The deputy director.

Q Of the entire DOC?

A No. The deputy director of the department of adult institutions. Currently Alan Earls.

[16] Q And what is your understanding of Mr. Earls' role?

A To supervise a zone of the institutions. So, I report the general operations of our institution to Mr. Earls. And then he does a third of the state. He's over a series of institutions.

Q Can you talk me through some of the day-to-day responsibilities that you do just to get a better sense of what your job entails on a regular basis? Perhaps, it's not the same every day.

A In general, I would define it as a problem solver.

Q Okay.

A You have a lot of review that is necessary through, you know, for grievances, transfers, outside work release, you know, staff complaints, general information. Then you have a guidance role where you're

kind of the ambassador between central office or Jefferson City and the institution. So everyday, you know, I'll meet with particular staff on new policies, new expectations or things that we need to do and then general operations. I meet with my deputy wardens and my executive staff every morning and we do an exchange of information. So, any guidance or anything that they need we discuss. And then answer a lot of phone calls and a lot of letters, either from staff or offenders or outside entities, etc. Pretty average day.

Q Do you interact at all with the director of the DOC?

[17] A Very little.

Q What would the little interaction relate to?

A I see her or him, now it's a her, during the executive staff meetings they generally attend to give us any instructions or announcements or anything. And then specifically at ERDCC, due to the execution protocol, they're present for that. So, I see them there. And then occasionally, they will make a tour of the institution.

Q Uh-huh.

A But other than that, in just general announcements, I don't have a lot of one-on-one.

Q And Anne Precythe is the current director of the DOC; is that correct?

A Yes, ma'am.

Q And what is your understanding of her role?

A Oh, her role is to supervise the entire department, both, Department of Adult Institutions, Department of Rehabilitative Services, the Human Relations Department and then the probation and

parole services. So, she encompasses everything or the supervision of everything.

Q Have there been any changes in your role since Ms. Precythe took over?

A No.

Q Does the State of Missouri have an execution protocol?

* * *

[22] about the composition, which is allowed under the Court's scope of discovery order, but getting into more intricate details that have already been provided in the documents, I'm going to object on any additional questioning regarding the more intricate details of the execution team and their rules and responsibility.

MS. NOTTON: My understanding is that we are able to learn about the different roles of execution team members and what they, generally, do. So, I think it's fair for us to ask about what the medical team members might do during an execution.

MS. COULTER: So, I guess, maybe if we rephrase the question just based on Mr. Steele's personal knowledge about what those team members may or may not do, generally, I would be comfortable with asking, but we'll just kind of take it on a question-by-question basis.

MS. NOTTON: Okay.

BY MS. NOTTON:

Q So, to your knowledge what do the two medical team members of the execution team do during the execution?

A Generally, and I'm, again, I have no medical training, okay; but through observation, there's three basic things that they do: They draw the chemical, they set the IV line and pronounce the death.

[23] Q And to your knowledge what do the two non-medical team members do?

MS. COULTER: Again, just kind of limiting our scope to just your general knowledge about what the two [redacted].

THE WITNESS: They follow the rest of the protocol.

BY MS. NOTTON:

Q Are all of the execution team members present for the execution?

MS. COULTER: I'm going to object on relevance.

BY MS. NOTTON:

[redacted]

[24] [redacted]

Q Okay. So, the medical team members are able to observe the execution?

A Yes.

Q Are they responsible for monitoring the prisoner during an execution to your knowledge?

MS. COULTER: Can you or I guess, I object to just use or – on monitoring. Can you –

MS. NOTTON: Let me rephrase.

MS. COULTER: Thank you.

BY MS. NOTTON:

Q Are the medical team members, is part of their responsibility, to your knowledge, to observe and watch the prisoner during an execution?

A I don't know the answer to that.

Q In your interrogatory responses when describing the execution team you noted that the medical team members oversee the administration of lethal chemicals. What do you mean by oversee?

A My understanding, again, I'm uncomfortable answering [25] that.

MS. COULTER: Okay. Maybe can we just take a – well, would you be comfortable if we just took a brief minute so that I can ask him regarding his level of comfort.

MS. NOTTON: Sure,

MS. COULTER: And we can discuss it a little bit.

(Recess.)

(THE PREVIOUS QUESTION WAS READ BACK BY THE COURT REPORTER.)

THE WITNESS: Okay. My understanding is that – let me back up a little. Each person has their protocol role and for the most part don't get involved in the other person's role. Okay.

My understanding of the medical team, they draw the chemicals and then they set the IV lines, and as I discussed before, they pronounce the death. I'm not aware of anything else, specifically, that I'm aware of that they do other than those three things.

And it came to me just this second, they do, if we offer a sedative earlier in the day, they do give us the sedative to give to the offender or give the offender the sedative, depending on what time it is.

BY MS. NOTTON:

Q Is it the offender that would request the sedative?

A We – we ask them, you know, they don't have to ask, we [26] ask them.

Q Would they have ever given a sedative to an offender who didn't ask for it?

A No.

Q Do you know what drug is used for the sedative?

MS. COULTER: You can answer, if you know.

THE WITNESS: Currently, it's an oral Benadryl.

BY MS. NOTTON:

Q And when do you, typically, ask the offender whether they would want the sedative?

A There's – I don't have the protocol in front of me, so I would want to, specifically, look at it. Well, I do. Can I look at it?

Q Of course.

A Yeah. Because there's two points where – wait a minute. Okay. We do it at 1:30 p.m. and that's when they offer – the operations officer advises the offender that he can request a sedative at that time.

And then we also notify him that any time after that point he can request a sedative. And then we, specifically, offer again at 5:20.

Q This is all on the day of execution, correct?

A Yes. That's with the execution scheduled for six o'clock.

[27] Q The open portion protocol discusses how medical personnel determine the most appropriate locations for IV lines; is that correct?

A Yes.

Q Are you, generally, present when they're inserting the IV lines?

A Yes.

Q And how do they make that decision, do you know, for where to place the IV?

A I don't know.

Q Do you know whether they do a medical evaluation of the inmate before inserting the IV line?

A No, I don't know.

Q Have you ever observed a member of the execution team have trouble inserting an IV line?

A Yes.

Q Can you describe that?

MS. COULTER: I'm going to ask for, I guess, a little clarification, whether you mean trouble inserting the IV line?

MS. NOTTON: I can try to rephrase.

BY MS. NOTTON:

Q You indicated that you've seen them have trouble; what do you understand trouble to mean?

[28] A I've seen where they've had to try more than once, because the initial site the IV did not, again, I'm not a physician, but it didn't work.

Q The protocol allows the medical team members to insert multiple IV lines, if necessary; have you observed that?

A Yes.

Q Is that the norm to do multiple IV lines?

A Yes, to do two, one in each side or each arm.

Q And they're, generally, in the arm?

A Generally.

Q Have you seen the IV inserted some place else?

A I've seen attempts. I can't remember if at the end they were there or not, but I've seen attempts. And then I've definitely seen on one occasion where we couldn't use the arms at all.

Q And where was the IV inserted then?

MS. COULTER: If you know you can answer the question.

THE WITNESS: I don't know, specifically, but we did the technique which is called, and again, I'm not a

doctor, but they call it a cutdown, where they had to do the line in the leg area.

BY MS. NOTTON:

Q Have you ever seen it done in the hands?

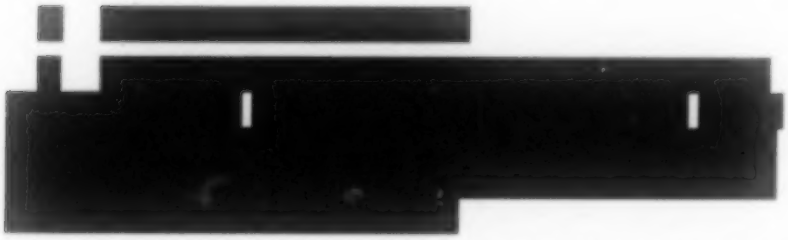
[29] A I've seen it attempted, but I can't remember if it ended in the hand or if it ended in the arm, it may have been, yes, but I don't know for sure.

Q How are inmates positioned during an execution?

A They're laying on their back with their, you know, arms on each side.

Q I'm assuming they're strapped down?

A Yes.



Q Have you seen an inmate positioned in any other way for an execution?

A No.

Q Do you know whether it's possible to alter the way an inmate is positioned during an execution?

A No.

Q The open portion protocol talks about monitoring of prisoners and states that the gurney shall be positioned so that medical personnel can observe the prisoner's face directly or with the aid of a mirror. Is that true for the executions

[47] cell to the gurney. And then, you know, they bring him in and you know, put him on the gurney.

Q And where is the gurney located?

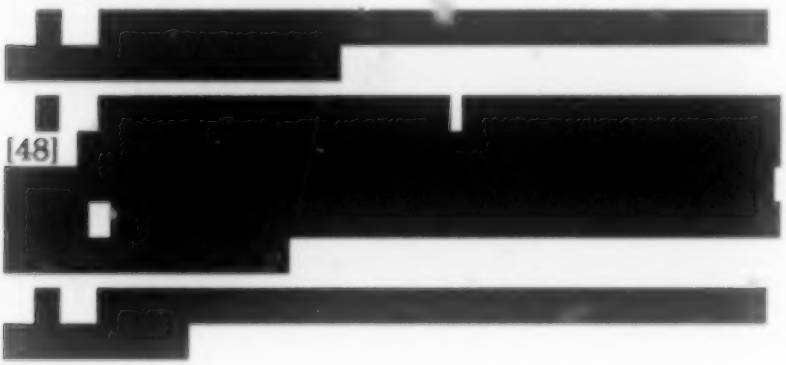
A It's – I don't know what we call the room, but actually, where the execution takes place. The way that it's set up it's a lot of rooms circling a room.

Q Uh-huh.

A Okay. Let's – be hard to describe for her to write. But you have a room in the middle and on one side will be a window where his visitors will be. Then there's another room where the victim visitors are. Then there's a room where the state visitors are. And then the other part of the square is where, what I call, the operations room is. All right. Well adjacent to that is another room where the offender is held. And so, when they bring him in, you know, then we – I come in and watch them, you know, place him on the gurney.

Q So, the gurney's in the actual execution room or chamber?

A Yes, yes. So, he walks in and then lays on the – it's more of a bed, and lays down on the bed and then they place the restraints.



Q Can you describe why that occurred, if you know?

A I don't know the specific legal terms, but I know that there's been some holds or some – some legal procedures or something that, and again, I'm not legally trained, so I don't know the appropriate terms so, but I know that there's been reasons that they have said: Do not move the offender. We're waiting for some adjudication of some sort.

Q So, it's primarily for legal purposes just to get the all clear, essentially –

A Correct.

Q – for the execution –

A Correct.

Q – from the legal team?

* * *

[54] things that are not here.

Q Can you describe those, generally?

Q And when you mentioned that you notified the director about the sedative, and is that primarily just to make him aware or her aware that the sedative was given or is there a different purpose for that?

A My understanding is just a part of the protocol. So, you know, I notify them as part of the protocol that we offered. And then, you know, that we notified the offender that even later if he were to request it, it would be available.

And then I tell them if any time in there that he does [55] take it then I call them and tell them that: Yes, he did or you know, initially I tell them if he didn't, but then if later if he requests it then I'll notify them.

Q Do you know whether it's possible to alter the protocol in any way?

A I – not at my level. If there's some variance from the protocol I notify the director and then the director would give us, you know, any permissions to – to vary. The only exception is I've halted, because a guy wanted to speak to the chaplain. So, I give him a second and brought the chaplain in. But other than that, any other variations I call the director.

Q Have you seen variations being taken under the current protocol?

A No, the only – well, the only two variations that I'm aware is the – when we did the cutdown permission to go into the leg and then we had a permission to

use one arm. We couldn't set a second arm, so we went with one.

(Recess.)

BY MS. NOTTON:

Q So, you had talked about that you had seen a cutdown used during an execution for finding a vein; is that correct?

A Yes.

Q And do you know approximately how long it took to do that cutdown?

[56] A No. I know that it took several minutes, you know. We had to, you know, go in and there's an actual cutdown packet of materials –

Q Okay.

A – that's available. And so, they had to go in and they, you know, they got that, they brought it in and you know, they were able to do it, you know. But you know, how many minutes it took, I, honestly, I don't remember.

Q Okay. But you wouldn't say it took like 15 minutes or something like that, would you, or do you just not remember?

A I, honestly, don't remember, you know. It was more than a couple of minutes and it could have been 15, maybe more than that, I don't think so, because it went fairly quickly. But you know, that's a whole, again, I'm not a doctor, but that's a whole procedure that, I learned that night, is much more complicated than what I thought. Again, I'm not a physician, but it – it – it, you know, it took a little bit.

Q Those tools that you refer to, those were available to the execution team; is that correct?

A Correct.

Q And so, these would be in the execution room or near by [sic]?

A Yeah, it's actually in that – not in the – I always say operations room, but there's, actually, a sealed sanitary [57] packet with all of the materials needed for that, that they just rip open and you know, can place over the area and you know, the gloves, everything is there for the – for the procedure.

Q Do you know what type of tools were used for that, generally, not medical terms –

A No.

Q – not needed?

A No, not – not really.

Q Did you see like a scalpel or some sort of knife?

A Yeah, it appeared. But I don't, again, I, at the time was talking with the offender so, you know, I wasn't concentrating on that part, you know.

Q Uh-huh.

A That's – I kind of let the medical people do their thing.

Q Uh-huh.

A And you know, I was, you know, talking to the offender.

Q Do you know at what point the decision was made to do the cutdown?

A Yes. The medical personnel told me that they could not get a good IV in either arm. And so, I went

to the director and asked permission to go to the cutdown format. And then was given permission, at that time was Director Lombardi. So, I was given permission and then went back in and told them that we had [58] received permission and then they, you know, did the procedure.

Q So, the permission was from the director to do that?

A Correct. Yes, ma'am.

Q And did the medical members of the execution team perform that cutdown?

A Yes.

Q And do you know whether it was the doctor or the nurse or both, perhaps?

MS. COULTER: I guess I'm going to object just on relevancy at this point with the line of questioning.

It's my understanding that the witness has already testified that he wasn't really sure what was necessarily going on, but that the medical personnel handled it. I guess, to the extent that you know the – an answer to that question, you can answer.

THE WITNESS: I know that they were both working together. I think the primary person was the physician.

BY MS. NOTION:

Q And this was done on the inmate while he or she was strapped to the gurney; is that correct?

A Yeah, to the bed.

Q Do you know whether any pain reliever was offered to the inmate before the cutdown occurred?

A I know that they did the shot, because I heard it, you [59] know. I heard him – normally in – well, every execution, they give a little shot before they place the IV so that they'll be less pain. And so, I've heard on several – well, every occasion, I've heard the medical personnel say: Hey, you're going to get a little stick here. We're going to give you a little bit to numb, but – and I heard that that night: Hey, there's going to be a little stick here and...

Q Would that be the lidocaine, do you think?

A I – I would be guessing. So, I would prefer not to answer. I don't know.

Q Okay. But outside of that shot, that it sounds like is typically given –

A Yes.

Q – you're not aware of them giving the inmate anything else?

A They – I'm sure that they wouldn't give him anything else –

Q Okay.

A – that would be – anything else would have to go through the director –

Q Okay.

A – for permission.

Q Could you describe, generally, how big the execution room is?

[60] MS. COULTER: I'm going to object on relevance. I don't know how the size of the execution chamber is relevant to the claims in the petition. And I don't know that – I know that obviously was not explicitly listed in the Court's order regarding the

scope of discovery, but to me this may fall into the intricacies regarding the execution protocol.

MS. NOTTON: The size of room.

MS. COULTER: Well...

MS. NOTTON: I'm trying to understand your objection.

MS. COULTER: Well, I don't know how it's relevant. I don't understand how the size of room is relevant to any of the claims, the surviving claim, that's in the petition. And like I said, I know that it wasn't specifically raised or addressed in the Court's order, that's the umbrella, I guess, that I would – to me that it would fall under.

MS. NOTTON: I would like you to still answer if your primary objection is relevancy grounds.

MS. COULTER: If you can – well, I'm trying to think if there's any – can I ask the witness: Is there any safety or security reason that you would have regarding the size of the room? I know we've talked, generally, about the positions of the room.

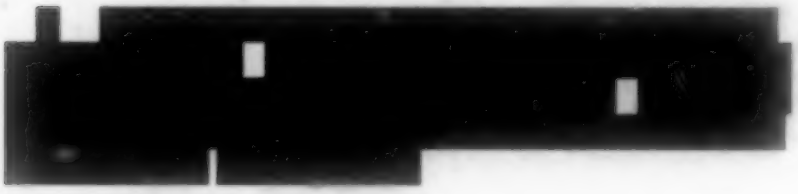
THE WITNESS: Not that I'm aware.

[61] MS. COULTER: Okay.

THE WITNESS: Okay. I don't know. I would say it's about this big, but –

BY MS. NOTTON:

Q This conference room big?



* * *

[64] care?

A Yes.

Q And then once the execution protocol starts on the day of the execution, it would transition at some point; is that correct?

A Yes.

Q And it would transition to the execution team; is that correct?

A Yes.

Q Are the Corizon staff members involved in the execution at all?

A No.

Q Do you know what information is shared between the Corizon staff and the execution team members?

A No.

Q Do you know whether the execution team members perform any medical evaluations of the inmate?

A No, they don't.

Q Do you know whether the execution team members would see an inmate before the actual execution day?

A Ask the question again. I'm sorry.

Q Sure.

Do you know whether the execution team members would interact with an inmate before the execution protocol were to [65] begin?

A No, they would not.

Q Is there a process in place to prepare a prisoner for execution?

A I don't know what you mean by process.

Q Are there any formal protocols or anything like that in terms of preparing the prisoner, himself, for an execution?

A (No response.)

Q Perhaps you have a protocol for a chaplain or something like that?

A Oh, okay, okay. I'm sorry. I didn't understand your question.

We make both a chaplain and a mental health staff available to the offender once he gets to Bonne Terre.

Q Okay. And so, an inmate goes to Bonne Terre first before the ERDCC or are those the same?

A I'm sorry. The ERDCC, which stands for Eastern Reception Diagnostic Correctional Center, when they arrive at the prison we make it clear to the offender that both mental health and chaplain services are available. Okay. Sorry about the clarification.

Q No problem.

Is the inmate told about the execution process at all?

A No.

* * *

[73] he was present when we made the notification when they started the execution process.

Back up. I, personally, spoke to each offender to give them that notification. I just felt that it was right. And so, I went down and met with them and told them that they were going to begin to, you know, to set dates again. And he was one of the ones. Well, I told everyone that was here. So, you, [sic] know I spoke with him then too.

Q And here being Potosi, correct?

A Yes. I'm sorry. At Potosi.

Q I know, we're literally at Potosi.

A Yeah.

Q Do you know what cavernous hemangioma is?

A Nope.

Q Are you aware that Mr. Bucklew has this condition?

A No.

Q Do you know whether an inmate has ever had this condition besides Mr. Bucklew with the DOC?

A No.

Q Do you know whether the DOC has ever researched whether a person with this condition could be safely executed?

A No, I don't know.

Q Are you aware that Mr. Bucklew's tumors affect his airway?

[74] A No.

Q Do you know whether he experiences any bleeding?

A No.

Q Do you know that he's given medical supplies to deal with his bleeding?

A No.

Q Do you know anything about how Mr. Bucklew's condition has been monitored over the years at the prison?

A No.

Q Do you know whether any special steps will be taken leading up to an execution for Mr. Bucklew?

A No.

Q Do you plan on taking any steps, personally, in advance of an execution with Mr. Bucklew?

A No.

Q Do you know whether if a prisoner were to begin convulsing on the table, is there a protocol in place for that?

A No, I'm not aware.

Q What about if a prisoner starts bleeding or hemorrhaging on the table, is there a protocol in place for that?

A Not aware.

Q What about if an IV were to come out of a vein or a vein were to blow, do you know whether there's a protocol in [75] place for that?

A Yes.

Q And what is that protocol?

A We would go to the secondary protocol of re-administering dependent on what time the event would happen in the protocol.

Q So, by re-administering would you start the process again?

A It would depend on where in the protocol. I ask this question, you know, to just – in passing to the medical team for my own knowledge and said, you know, what would happen if we were, you know, this were to happen? And it would depend if the, you know, if all the medications had already been administered then it may not be necessary. If not, then it may be necessary to go and reset the IV and go to the second administration that would be something that I would notify the director and let them make the call.

Q So, the director would make that call?

A Yes, ma'am.

Q Outside of that, is there any protocol in place that you're aware of for – if an IV were to not function properly?

A No. Oh, you talking about once in place? Once we started the injection.

Q Yes. Yes.

[76] A No. No.

Q Is there a different protocol you're thinking of for before the IV is inserted?

A Yeah, that's where we did the step. Yeah.

Q Understood.

A That's why, I just didn't want to get the two confused.

Q Understood.

A Yeah.

Q Have you ever – let me start that again.

Are you aware of any of these issues arising during an execution under the current protocol?

A Yeah, we – that's where we had the – we went into the leg before we couldn't set an IV in the arm.

Q Right.

Outside of that instance?

A No.

Q Same for the bleeding or hemorrhaging and choking?

A Not that I'm aware, no.

Q Have you ever seen an execution team member ask to halt an execution?

A No.

Q Do you know whether the execution team members would be made aware of Mr. Bucklew's condition prior to the execution?

A I know that they receive his medical records.

[77] Q But outside of that, you're not sure?

A No.

Q Do you know whether any members of the execution team would be permitted to opt out if, for whatever reason, if they didn't want to participate in Mr. Bucklew's execution?

A Yes. I was told that at any time any of the members of the execution team, it was volunteer [sic], that nobody is made to do it

Q Have you ever seen that happen before?

A No, not since I've been there. No.

Q Do you know whether the protocol will be customized in any way for Mr. Bucklew?

A Not that I'm aware, no.

Q Do you know if it's possible to customize the protocol for an inmate?

A No, I don't know what – I don't know what customize would mean necessarily.

Q Do you know whether the protocol would be changed in any way to accommodate a prisoner, perhaps for a medical reason?

A I know that it could be, but I don't know if it would be.

I know that we could go directly to the cutdown, for instance, but any more than that, I'm not a doctor. I don't know.

[78] Q Okay. So, it's possible that it could be customized for the IV, for example, is what you're saying; is that correct?

A Right. Based on the physician and the director, if they had some discussion then I suppose it would be possible to go directly to that procedure, which is already in the protocol.

Q Outside of that procedure, are you familiar at all with how the protocol could be customized, if it can, outside of that?

A No.

Q Do you know whether a final medical evaluation is performed before execution?

A No.

Q Do you know the last time an inmate sees their regular medical staff, so the Corizon employees, for example?

A No.

Q Do you know whether Mr. Bucklew was ever transported to the ERDCC previously?

A I believe he was.

Q I will tell you he was.

A Yeah, I believe –

Q Prior execution –

A – he was.

Q – date.

Were you warden at that time?

* * *

[90] A No.

Q And who would do that?

A It would be the medical staff present.

Q Of the execution team?

A Yeah. You're saying once the execution gets started, once we start, then it would be them, yes.

Q And you also indicated that you would approve any sort of object being brought into or given an inmate at the ERDCC; is that correct?

A Yes.

Q Would that include something like gauze?

A No.

Q Why not?

A You're asking whether I would approve it or whether I would review it?

Q More review, is what I was getting at.

A No, gauze is – that's a normal thing that, you know, we have a lot of offenders who get gauze or they'll get a little piece of tape or something or a bandage or a Band Aid or something. I don't look at every one of those. It's specifically more an item that will – could be a security concern, you know, a cane, you know, a cane is number one. We, you know, I – if it was a particular need for a crutch that was made out of some, say something different than it's a typical or [91] say a wheelchair that was animated other than a pusher or something like that, then that would be asking that my team and I could consider, but gauze would be – that would just be a normal thing that would be something we would –

Q What about something like a biohazard bag?

A It would depend on the size of the bag.

Q Okay. And is your primary focus there the security reasons –

A Correct.

Q – like that you're talking about?

A Correct.

Q Okay. Do you know who would know if the gurney can be adjusted?

A I would suppose that my deputy warden could tell me and I will know today, but it just never has come up and I just don't know.

Q So, is it fair to say that you've, under the current protocol, the gurney has only been flat?

A Yeah. It's just never been adjusted. So, I don't know that it can't, but I'm not going to say that it can, not knowing that it can, I just don't know.

Q Okay. Thank you.

A Thank you.

And I will know the size of the room.

[92] Q How big is it?

A I'm going to find that out too for my own interest.

Q Well, I am terrible with sizes, so . . .

Deposition concluded at noon.

[1] IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF MISSOURI

No. 4:14-CV-8000-BP

RUSSELL BUCKLEW,

Plaintiff,

vs.

GEORGE LOMBARDI, *et. al.*,

Defendants.

DEPOSITION OF DR. WILLIAM MCKINNEY
TAKEN ON BEHALF OF THE PLAINTIFF
February 21, 2017

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* * *

[10] A I briefly reviewed the electronic medical record on Mr. Bucklew.

Q Okay.

MR. VERMETTE: He was also provided with a copy of the complaint as well.

BY MS. BIMMERLE:

Q Got it. Okay.

Did you review any of the prior deposition testimony, other depositions in this case?

A I don't know of any.

MR. VERMETTE: No.

BY MS. BIMMERLE:

Q Okay. Have you spoken with anyone else besides your attorney?

A Have not.

Q Okay. That includes, you haven't spoken with Mr. Bucklew about this?

A Definitely not.

Q Okay. And then when you reviewed Mr. Bucklew's medical records, did you sort of go back to when you first started seeing him or just skim the most recent?

A I went back to the initial visit and then kind of skimmed forward.

Q Okay. Have you reviewed any press or news articles [11] connected with this case?

A None.

Q Have you reviewed the expert reports submitted in that case?

A I saw them – whenever...

MR. VERMETTE: Yeah, I think only that was – what was referenced in the complaint.

BY MS. BIMMERLE:

Q Okay. And then have you spoken with the state's expert at all?

A No.

Q Any other preparation?

A No.

Q So, well just walk through your education and employment background. Where did you get your medical license?

A University of Missouri Columbia.

Q Okay. And when was that?

A 1976.

Q Okay. And you completed a residency after that?

A Correct. Family practice, completed in 1980, St. John's Mercy.

Q Okay. And are you a general practitioner or do you have a specialty?

A It was family practice.

[12] Q Okay. And to confirm, you're not an ear, nose and throat specialist?

A Correct.

Q You're not an anesthesiologist?

A Correct.

Q Are you familiar with the condition cavernous hemangioma?

A Not as an expert, no.

Q Okay. Do you know whether cavernous hemangioma is a common condition?

A It's not common.

Q Okay. And were you familiar with cavernous hemangioma before you started seeing Mr. Bucklew?

A No.

Q Have you done anything to become more familiar with cavernous hemangioma since you started treating Mr. Bucklew?

A As I would hope any physician would, if you don't know anything about it, you'll look into it.

Q Okay. And what did you review to become more familiar?

A Medical literature or probably more likely Up-to-Date as a medical reference.

Q Okay. And are there any specific publications that you looked at –

A I did not.

[13] Q – that you recall?

Okay. Have you taken any specific classes or continuing education related to cavernous hemangioma?

A No.

Q Have you ever authored any articles about this condition?

A No.

Q Or presented about this condition?

A No.

Q Okay. You're presently employed?

A Yes.

Q And who is your employer?

A Corizon.

Q Okay. Before you were employed by Corizon, did you have a private practice at all?

A Private practice from 1980 to 1990.

Q And did you begin working with Corizon immediately after that or were you employed elsewhere?

A I was then employed by SSM from 1990 until I began my employment at that time with Correctional Medical Services, which was back, trying to remember, 2002.

Q Okay. And when you became employed by Corizon what was your title or your position?

A Medical provider.

* * *

[22] Q Okay. Have you ever seen this memo before?

A Dwight provided me a copy of this, prior to that I have not seen it.

Q Okay.

MR. VERMETTE: That's right.

BY MS. BIMMERLE:

Q And what do you understand this or this procedure to mean?

A Which procedure are we talking about?

Q Okay. The nonparticipation by health services; does this apply to you?

A It does.

Q Okay. And in what way does it apply to you? What does it prevent you from doing?

A I think I've answered that per this policy, as we knew when we were employed by Corizon, medical personnel does not participate in any way having to do with preparation for or implementation of execution.

Q Okay. So, you don't provide any advice to the execution team about how to go about implementing its protocols?

A Correct.

Q At what point in time prior to a scheduled execution do you stop being responsible for an inmate's medical care?

A I didn't know that I stopped until the patient was [23] removed from my care.

Q Okay. So, you continue to provide care all the way up until they're transferred out for execution?

A Right.

Q Okay. Do you know whether the execution team receives a copy of the inmate's medical records?

A I do not.

Q So, you don't know whether anybody on the execution team reviews medical records?

A I do not.

Q Do you know who within the medical unit would be responsible for transferring a patient's medical records?

A I do not.

Q Are you familiar with the term pre-execution status?

A Am I? No.

Q And what does that term mean?

A My understanding of that is the patient has been read information that they're on a pre-execution status and they are awaiting to be transported. At this point they go to ERDCC while awaiting execution. When they are moved, that's at the discretion of DOC.

Q Okay. And does an inmate's placement on pre-execution status impact how you provide care?

A Of course not.

[24] Q Have you ever observed an execution?

A Never.

Q Have you had any other patients besides Mr. Bucklew who have been scheduled for execution?

A Yes.

Q And were they ultimately executed?

A Some were. Some weren't.

Q For those that, if they were not executed, were they typically returned to your care?

A Yes.

Q And how – how would you – did you note change in their demeanor or – or state of health upon return to you?

A State of health, no. Demeanor, yes.

Q And can you describe that change?

A Cocky.

Q So, for the process for receiving medical care, generally, are appointments typically instigated by medical service requests?

A Correct.

Q Do you personally review medical service requests?

A They do not come to me.

Q Who do they go to?

A Nursing personnel picks them up.

Q Do you know approximately how long after receiving a [25] request an inmate will typically get an appointment?

A I have no idea.

Q Is an inmate able to specify the doctor that they want to see?

A They can, but I'm the only one.

Q Oh. So, there's only – there's only the one primary care physician at Potosi?

A Correct.

Q Okay. About how many times have you seen Mr. Bucklew since you began treating him in 2005?

A I did not review that. I don't know. He's seen routinely in chronic care, so being the fact that he's in chronic care, depending on, he will be seen for each chronic care he's in, he'll be seen at least every six months.

Q Okay. And you say for each chronic care he's in, can he be in more than one chronic care at a time?

A Absolutely.

Q About how many chronic cares is Mr. Bucklew in?

A I don't know.

Q Could you ballpark it?

A I will not, because I have no idea. I don't know that part of his . . .

Q Got it. Understood.

Do you ever see Mr. Bucklew outside of his chronic care

* * *

[34] Q Uh-huh. And I guess, so just for my understanding, is a tracheostomy a particular way of intubating a patient?

A No. If a patient has been intubated for a prolonged period of time, and that may vary by the number of days, where the location, in order to not cause damage to the vocal cords they will remove the tube and they will do a tracheostomy to have it directly in the lungs, avoids putting pressure on the vocal cords.

Q Okay. But this report doesn't describe anything about him having been intubated, specifically?

A I have no knowledge of that. I'm just saying that he has had a tracheostomy.

Q Okay. And in the second paragraph here, starting with presents today, does it say here that he has increasing left – increasing size left side of face; is that shorthand?

A I'm – you're going to have to show me where.

Q If you look here, beginning with this paragraph, increasing size. Is that in reference to his hemangioma or the left side of his face, generally?

A I would say that he was referring to his hemangioma. I think it's probably a typo though, because it says left side. His hemangioma is on the right.

Q On the right?

A My fingers don't always obey.

[35] Q Okay. And does it also say down toward the bottom in assessment: Cavernous hemangioma per patient and nursing history increasing in size.

A Correct.

Q Okay. So, at least as of the time of this record it was noted that his hemangioma was progressing, it was increasing in size?

A No, I didn't say that, because I had nothing to objectively base that on. This is all subjective.

Q Okay. But subjective per a nurse, who is familiar with his care?

A Who had seen him previously, that's all I'm saying.

Q Okay. In going back to when you first started treating Mr. Bucklew for the cavernous hemangioma, can you describe, generally, what symptoms he presented with at that time?

A Complained just of the enlarged blood vessels that are on the right side of his lip and in his mouth.

(Recess.)

BY MS. BIMMERLE:

Q Okay. So, just to backtrack a little bit, you mentioned that there's no specific care for cavernous hemangioma; what did you mean by that?

A Meaning that there isn't a specific medication that can be given for cavernous hemangioma, which would be within what I [36] do.

Q Is there a course of treatment that doesn't involve medication?

A Probably would not use the word course. I would say, as you already know, there's an option of sclera therapy, option of radiation therapy and option of surgery.

Q Okay. In terms of day-to-day care though, how do you go about, I guess, ameliorating the symptoms of cavernous hemangioma?

A I do not have a medication that's going to change that. He's receiving pain medication, because that's his complaint of discomfort, but other than that, I do not have a medication. As Dr. Zitch plainly told the gentleman that he had nothing else to offer him.

Q Okay. So, then is it your understanding that there's no clear cure –

A Correct.

Q – for cavernous hemangioma?

Throughout Mr. Bucklew's medical records there are references to episodes of bleeding throughout the records. Can you, generally, describe what this bleeding is for Mr. Bucklew, how it presents?

A I find that interesting, that's why I reviewed the nurse's notes. In terms of him presenting with any emergency in [37] 2016, there were none. There was, in terms of a code 16, patient in trouble, nursing all goes to the site. As I said it earlier, I saw in the review he had a self-declared medical emergency, January of 2016, right eye. And self-declared, I believe, April of 2016 that he had bleeding and that's the only "emergencies" that he presented for medical assistant [sic].

Q Beyond emergencies though, does he experience episodes of bleeding that aren't coded as emergencies?

A I can only say I have never seen the gentleman present with a bleed.

Q Okay. In your review of his medical records and you know, having reviewed his medical records, how

do you describe his episodes of bleeding based on your review of his records?

A I don't describe them. I've never seen a bleed.

Q Okay. You also noted that you haven't noticed a big change in his condition, but have you noticed a change in his condition?

A I have.

Q And can you describe the change?

A I will try. It's not more than just the blood vessels appearing to get larger.

Q Okay. And has that been the only change in his condition?

A That's what you see when you – when you look at the

* * *

[42] BY MS. BIMMERLE:

Q And so, is it your understanding based off this MRI that Mr. Bucklew's airway is significantly compromised by the cavernous hemangioma?

A Well, answer that as reply to many things. Using an example, if you do a CT scan on 100 people my age about one-third of them are going to have herniated discs and they have no symptoms. So in medicine if you have something that's there and the patient has symptoms and you have physical findings objectively you try to put it all together. But we don't treat anyone by a number or by a finding.

And in light of this, Mr. Bucklew's recently told me he still walks a mile, does fine breathing. Okay. So, yes, I see what you're saying, but is it impinging on his ADLs? At the time the answer would be: No.

Q Okay. Despite the statement that –

A Despite that statement, yes, because his activities of daily living and what he shares with me what he does is not consistent that he actually has an impairment with his ADLs or breathing.

Q Have you ever conducted any testing yourself to assess Mr. Bucklew's airway?

A Other than visualizing it, no.

Q Okay.

[43] A Because he tells me what he can do, that's the important thing.

Q Uh-huh. When you have observed Mr. Bucklew has he exhibited any – does he – does he breathe in an unusual way, would you say?

A He doesn't have respiratory – any respiratory compromise with normal activities. My office, where I work, is right next to where the people come in to medical. So, it's not unusual for Mr. Bucklew to be walking over to receive pain medication. When he's there he is showing no respiratory distress or difficulty breathing. He gets his pain medication, he chit chats with the nurses, and he leaves.

Q Okay. Would you say that there is a – that there's a range of difficulty breathing somewhere in between actual asphyxiation and breathing completely normally?

A Correct.

Q Okay. Does Mr. Bucklew breathe completely normally?

A I don't breathe completely normally, because I also have the same obstruction. I have an obstruction.

He may not breathe completely normally, but it's not impairing his activities of daily living. It's not limiting him.

Q Do you have any knowledge of whether Mr. Bucklew's position changes his breathing or impacts his airway?

A I'm trying to remember. I'm not – I don't recall if [44] he has a pillow elevation for his head or not.

Q Okay. If I told you that the records do show that you've given him a second pillow –

A Okay. Then that's probably why we do it as a – to make it more comfortable for him in some way.

Q Okay. So, the positioning of his head as compared to his cavernous hemangioma can effect [sic] his – how his –

A It may make it easier for him.

Q – breathing.

Okay. All right. Another medical record for you.

MS. BIMMERLE: This will be Plaintiff's Exhibit 24.

THE WITNESS: Okay.

BY MS. BIMMERLE:

Q Okay. And so, have you seen this record before?

A I have.

Q Do you generally recall the contents of this conversation with Dr. Zitch?

A I do.

MS. BIMMERLE: Okay. And for the record, this is a medical note made on April 12th of 2012.

THE WITNESS: Correct.

BY MS. BIMMERLE:

Q Okay. Down towards the bottom, can you just describe for us what Dr. Zitch had to say about Mr. Bucklew's condition?

[45] A I initiated a phone call to try and see what available therapies were for Mr. Bucklew, knowing that he previously had sclera therapy. I did not know at the time of the phone call that that particular ENT had been involved in his care prior to incarceration.

Given the fact that he was not a candidate for sclera therapy, Dr. Zitch had recommended that he try radiation therapy. Mr. Bucklew did not go through with that. He chose not to continue.

And so, I reviewed all of this with the ENT, and as it says in the note, Dr. Zitch said that Mr. Bucklew's risk of life threatening hemorrhage might be and could be, but would be a low risk. And stated that the hemangioma continues to grow in the next 10 years the risk will increase. Should Mr. Bucklew present with a persistent hemorrhage then, embolization would be considered, but he wasn't candidate for sclera therapy.

Q Okay. What precipitated your question as to whether Mr. Bucklew's – whether Mr. Bucklew was at risk of life-threatening hemorrhage?

A Good question, but I don't remember why I made the phone call that day other than wanting to know what else we could do for him.

Q Okay. But it was your understanding that should the hemangioma continue to grow, Mr. Bucklew's risk of hemorrhage [46] would increase?

A No, it was the information provided by the ENT that at this point he thought he would be low risk and

that if it did continue to grow over the next 10 years the risk would increase.

Q Okay. Do you recall why Mr. Bucklew discontinued radiation therapy?

A I wasn't involved in that as he was at a different camp when he was receiving that. All that I know is what the provider put on the record at that time.

Q What do you mean: He was at a different camp?

A He was receiving radiation therapy at Jefferson City –

Q Uh-huh.

A – because this was four days a week and going to be for three days, it's customary for the patient to stay at a different infirmary, which in this case would be Jefferson City Correctional Center as a convenience, both to the patient and as a courtesy to the DOC staff to –

Q They don't have to transport?

A – transport back and forth, sure. You don't want to put patients or DOC through it unnecessarily.

Q Was it your understanding that Mr. Bucklew had experienced some discomfort with radiation therapy?

A I wasn't aware that he had any discomfort. I would think that would be unlikely with what he had so far.

[47] Q Okay. You mentioned that you had reviewed his records from the radiation therapy?

A Yes. Not from the radiation therapy, from the provider at the other camp.

Q Okay.

A And that was the fact that he was unhappy being there. He didn't like not having canteen and wanted to be able to see his family. I quit.

Q Okay. And so, to the best of your knowledge, he didn't complain of facial pain, of nausea?

A I wasn't aware of that.

Q Okay. I have another record.

MS. BIMMERLE: This will be Exhibit 25.

THE WITNESS: Okay.

BY MS. BIMMERLE:

Q All right.

So, I'm looking at the record beginning on October 22, 2013, about halfway down the first page. Have you seen this document before?

A Yes.

Q Okay. And if I direct you down towards the bottom of the page where it says exam, can you explain what your findings were pursuant to this exam?

A (No response.)

[48] Q I believe this is yours. Yes.

A Just confirm, cavernous hemangioma of the lip, mainly on right side oral cavity and his uvula, another misfire by my finger there, this appears longer and fuller than last exam. No current bleeding.

Q Okay. So, at least on October 22, 2013, you thought that his uvula had changed in size since his prior exam?

A Right. Yes.

Q Okay. I guess by change, just to clarify for the record, that it had increased in size?

A That's right.

Q All right?

MS. BIMMERLE: And I have here Exhibit 26.

THE WITNESS: Okay.

BY MS. BIMMERLE:

Q Okay. So, I'm looking at the entry dated November 2, 2015, about halfway down the page.

A Yes.

Q And can you describe your findings regarding his oral cavity on that date?

A Well, he wasn't seen specifically for that. He came in with a sore throat and ear pain. The oral cavity, again, large cavernous hemangioma right, appears to increased [sic] in size as of the size of already large uvula.

[49] Q So, again, on that date in 2015 it was your understanding that at least since the last time you had seen him his cavernous hemangioma had increased in size?

A Yeah.

Q Okay. Since November of 2015 have you noted any other changes in Mr. Bucklew's condition since the date of that entry?

A This, I think, is going to be a progressive disease, that's what it's demonstrated over time. So, yeah, I would have to say it continues to slowly increase, not at the rate that I would initially have expected

when I first saw the gentleman, but Dr. Zitch is correct, it's a slowly progressive disease.

MS. BIMMERLE: I have another record here it will be Plaintiff's Exhibit 27.

THE WITNESS: Okay.

BY MS. BIMMERLE:

Q Okay. And so, I'm referring to the record, it's a nurse encounter on November 23, 2010. Have you ever seen this document before?

A I may have. I don't recall it.

Q Okay. I'm looking down towards the bottom of the record 11:00 a.m. responded to?

A Yes.

Q Okay. And here does it show that a nurse responded to – is that an inmate call light?

[50] A Where was the gentleman located? He is in the infirmary at this time, so that would be true.

Q Uh-huh. Okay. And he was found leaning over the toilet with blood coming from his mouth?

A That's what it says.

Q So, this is an instance where he was observed to be bleeding?

A In 2010, yes.

Q Okay. And at that time what was he given to alleviate the bleeding?

A Well, there's something missing here, it's called a plan. So, I don't know what happened after that.

Q So, I guess just a couple lines down it says that the inmate is given gauze to place in mouth and apply pressure.

A Oh, sure. Well, that would be standard.

Q Okay. Standard.

Did you generally provide, I guess, with these bleeding incidents, did you generally provide Mr. Bucklew with gauze to alleviate his bleeding?

A Mr. Bucklew can get gauze any time he needs them, that's not a problem.

Q Okay. How does he obtain the gauze?

A Asked for it. Nursing gives it to him.

Q Okay. And has he also been provided with biohazard [51] bags?

A I don't know.

Q Okay. Why might he be given biohazard bags?

A Most people get concerned about blood, particularly if you have a communicable disease.

Q Uh-huh. So, if he had gauze that he wanted to be able to get rid of from his cell he would need one of those bags?

A It would be nice.

Q Okay. Are you aware of how often he would ask for new gauze or new –

A I have no knowledge of that.

Q Okay.

MS. BIMMERLE: This is Plaintiff's Exhibit 28.

THE WITNESS: Okay.

MS. BIMMERLE: Okay. And for the record, this is another – another nurse encounter dated May 16, 2006.

BY MS. BIMMERLE:

Q And can you describe what the chief complaint was here? It was half halfway [sic] down the page.

A It states that he was eating chips and his mouth started bleeding, ruptured mandibular tumor. They said I could bleed to death from it.

Q Okay. And what action did the nurse take there?

A It appears that they cleaned it with normal saline and [52] removed the dried blood from his face and applied gauze in mouth with pressure.

Q Okay. And he was advised at that time not to consume chips or foods that would puncture the inside of his mouth?

A That's what it states.

Q Okay. Are you familiar with that advice having been given him at some point in time?

A I am not.

Q Okay. Would you, generally, agree that it's better for him not to consume chips or things that could puncture the inside of his mouth?

A I think we've already established for some time he has had a soft diet.

Q Okay. And you agree that that's advisable?

A Reasonable, yes.

Q Okay. Are you aware that Mr. Bucklew has also been diagnosed with a general anxiety disorder?

A Yes.

Q Can anxiety manifest in any physical symptoms?

A For example, like headaches.

Q Okay. Any other physical symptoms?

A Panic attacks, palpitations, just fear in general.

Q Okay. Shaking?

A Could.

[53] Q Okay. Have you observed any physical manifestation of anxiety in Mr. Bucklew?

A He's related to me that he's under stress regarding his legal condition, but in terms of physical manifestations, no.

Q So, you haven't noted his leg shaking or hand tapping or anything like that?

A My leg is shaking right now.

Q One could say that a deposition might be stressful.

A I find it could be.

Q Are you aware of any impact that Mr. Bucklew's anxiety has had on his overall health?

A Overall physical health, no, not really.

Q You mentioned that anxiety can cause headaches. Could that exacerbate pain that he already has in his face?

A Could intensify the pain, patient's perception of it, sure.

Q Okay. Would you expect a patient in Mr. Bucklew's position to suffer from anxiety?

A Which position?

Q I guess, the combination either in connection with cavernous hemangioma, we'll start there. Would you expect somebody with congenital cavernous hemangioma to suffer from any level of anxiety?

A I think your term is some level, yes, some level.

* * *

[74] Q But this was an instance where medical personnel had observed –

A Back in 2013.

Q Okay. Have you, generally, provided him with any advice for how he could safely exercise without risk of bleeding?

A I have not told him specific things to do, but I always encourage everybody, they feel better if they're physically active and I think it's good for us all emotionally too.

Q That's probably true.

A When I get out of here I'm going to be exercising.

Q Mr. Bucklew does try to walk a mile a day?

A He's told me that he tries to walk. I don't know that it's that frequently – that frequency, but yes, he walks.

Q But you don't recall ever specifically telling him what he personally can do that would be safe, given his cavernous hemangioma?

A I didn't give him any restrictions either.

Q Okay.

A So, if he wants, obviously, not contact sports, it's a given, but short of that, no.

Q Okay. Right.

Going back to sort of severe respiratory concerns, what do you classify as severe respiratory issues or a severe [75] respiratory complaint?

A If someone came up and they were saying: I'm really having trouble breathing, then you would look at them, number one.

All these patients when they come they're getting O2 concentrations document plenty of oxygen in their blood. We're going to assess how rapidly they're breathing. We're going to look at their color and we're going to, if need be, listen to them, obviously. And then how does that go along with their medical condition or the mental health condition and how are they doing with their ADLs? Are they being impaired?

Q Would you say that somebody with – would you say that somebody with sort of severe respiratory concerns is always having a difficult time breathing?

A People with severe respiratory ailment, they always have difficulty, severe, yes, they always have significant impairment.

Q What typically leads to a severe respiratory ailment?

What type of ailment would that be?

A Chronic obstructive pulmonary disease.

Q Okay. So issues –

A Lung disease.

Q – within the lungs –

A Yes.

[76] Q Or maybe something like asthma?

A Another lung disease. If he had exacerbation of asthma –

Q Okay.

A – the lungs can't work.

Q How many patients have you had where the airway issue is a literal physical obstruction as opposed to a chronic pulmonary disease?

A Physical obstruction, meaning that they can't breathe?

Q A physical narrowing of the airway as opposed to –

A It's happened over time, because people they'll have a head or neck cancer or they'll have another cancer that has metastasized to the area and it can impair their airway.

Q Okay, would you say that those physical impairments present as a constant –

A Yes.

Q – issue in the same way?

A Yes. Once it's there, it's there.

Q Okay.

MS. COULTER: I don't have any further questions.

MR. VERMETTE: We'll read, please.

Deposition concluded at 3:10 p.m.

IN THE UNITED STATES COURT OF APPEALS
FOR THE EIGHTH CIRCUIT

No. 03-3721-WMKC

RUSSELL BUCKLEW,

Petitioner-Appellant,

v.

DONALD ROPER,

Respondent-Appellee.

THIS IS A CAPITAL CASE

FILED EX PARTE AND UNDER SEAL:

MOTION TO APPOINT MEDICAL EXPERT TO EVALUATE WHETHER PETITIONER'S EXECUTION BY LETHAL INJECTION CONSTITUTES CRUEL AND UNUSUAL PUNISHMENT IN LIGHT OF PETITIONER'S MEDICAL CONDITION

Petitioner Russell Bucklew, by and through counsel appointed by this Court to seek executive clemency for him, hereby moves the Court for an order under 18 U.S.C. § 3006(a) and 18 U.S.C. § 3599(f) authorizing petitioner's counsel to obtain expert services reasonably necessary to determine whether petitioner's execution by lethal injection constitutes cruel and unusual punishment in light of petitioner's affliction with a rare and dangerous vascular disorder. This disorder is characterized by grossly dilated blood vessels prone to uncontrolled bleeding. The administration of

general anesthesia may pose an extreme risk of hemorrhaging and excruciating pain.

In support of this motion, the petitioner states all as follows:

* * *

11. Although the United States Supreme Court recently held, in *Baze v. Rees*, 128 S. Ct. 1520 (2008), that Kentucky's lethal injection protocol was constitutional, Mr. Bucklew's case presents unique issues far beyond what *Baze* addresses. Counsel has serious concerns that Mr. Bucklew will suffer the risk of serious harm amounting to cruel and unusual punishment during the administration of Missouri's lethal injection protocol in light of his affliction with cavernous hemangioma. To constitute cruel and unusual punishment post-*Baze*, an execution method must present a "substantial risk of serious harm." 128 S. Ct. at 1531. Here, petitioner seeks to demonstrate, through expert medical services, that Missouri's method of execution, *as applied uniquely to Mr. Bucklew*, may constitute cruel and unusual punishment. Accordingly, Mr. Bucklew seeks the appointment of a medical expert to examine the severity of such complications arising from his cavernous hemangioma.

* * *

40. The symptoms associated with cavernous hemangiomas are the threat of stroke, seizures, visual and hearing loss, double vision, pain, bleeding, difficulty swallowing and breathing, and disfigurement. With large hemiangiomas, spontaneous and uncontrolled bleeding may occur resulting in death.

* * *

49. It is my opinion, to a reasonable degree of scientific certainty, that what the scientific community *does* know about cavernous hemangiomas casts doubt on the efficacy of an injection of sodium pentothal as an anesthetic for a person with cavernous hemangiomas, in that, for example, Mr. Bucklew has high-flow cavernous hemangiomas, meaning that they are supplied by an artery rather than a vein; and, therefore, given the fact that the cavernous hemangiomas are supplied by the same arterial system that supplies the brain, the cavernous hemagiomas are a factor what would cause slowing of the sodium pentothal to reach the circulatory system of the brain.

50. If the Court authorizes funding for my professional time and my out-of-pocket expenses in doing so, I will immediately commence a detailed medical literature review to see if I can find any existing research that might indirectly bear on the effects of Missouri's lethal injection protocol on an individual afflicted with one or more facial cavernous hemangioma. In addition, I would travel to Missouri and perform a diagnostic evaluation of Mr. Bucklew's specific condition.

51. In the absence of detailed findings by a qualified professional in my specialty as aforesaid, and the Department of Corrections' following the conclusions of such findings, the application of a three-chemical protocol for lethal injection to Mr. Bucklew creates a known likelihood of anesthetic failure resulting in abnormal prolongation of his execution, during which he would by definition be conscious to some extent, and/or his consciously enduring the pain and suffering that the Supreme Court has held to be unconstitutional from the second and third chemicals.

Further, the affiant saith naught.

I swear or affirm that the foregoing is true and correct.

/s/ Adam J. Cohen
ADAM J. COHEN

IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF MISSOURI
WESTERN DIVISION

Case No. 14-8000-CV-W-BP

RUSSELL BUCKLEW,

Plaintiff,

v.

GEORGE A. LOMBARDI, *et al.*,

Defendants.

ORDER GRANTING IN PART AND DENYING IN PART PLAINTIFF'S MOTION TO COMPEL

This is a civil rights lawsuit, brought by a condemned inmate. Plaintiff contends that the State's method of execution as applied to him violates the Eighth Amendment because of his unique medical condition. More specifically, Count I of the Fourth Amended Complaint alleges that given his circulatory and related disorders, execution through lethal injection poses a risk of severe pain and suffering that can be alleviated if he is executed through the use of lethal gas. Counts II challenged the staffing and procedures to be employed during the execution and Count III asserted Plaintiff's First Amendment rights were violated because he was not provided information about the source of the chemicals to be used in the execution. These two claims were dismissed. (Doc. 63, pp. 14-16.)

Early in the discovery process, the Court issued an Order Regarding Scope of Discovery ("the Scope Order").

(Doc. 105.) The Order discussed broad categories and determined that some were proper subjects of discovery and some were not.

Shortly before the discovery deadline of March 10, 2017, Plaintiff contacted the Court to seek resolution of outstanding discovery disputes. A telephone conference was held on March 15, 2017, ("the March 15 conference"), following which the Court, *inter alia*, directed Plaintiff to file a Motion to Compel. (Doc. 163, pp. 1-2.) The parties were also directed to provide any related written discovery requests and the corresponding answers/objections.

The Motion to Compel, (Doc. 169), is fully briefed. It raises issues regarding (1) Plaintiff's request to elicit further information related to, or depositions of, members of the execution team (particularly M2 and M3), (2) Defendants' provision of a privilege log, and (3) Defendants' efforts to fully search e-mails for responses to the discovery requests. The Court has considered the parties' written arguments, the discovery requests, and the comments made during the March 15 conference. In light of these materials, the pleadings, and the Court's prior Orders (including the Scope Order), the Court resolves the parties' arguments as discussed below.

I. Additional Information About Members of the Execution Team

Plaintiff contends that Defendants should be required to provide additional information about the members of the execution team. Specifically, Plaintiff wants information about the team members' training and experience, as well as access to depositions of team members taken in other cases that are the subject of Protective Orders issued in those cases. Defendants

contend that this information is not relevant in light of Plaintiff's remaining claim. Consistent with its prior rulings, the Court agrees with Defendants that this information exceeds that which is necessary in light of Count I's allegations.

The Court's explanation begins with the Fourth Amended Complaint, and in particular the differences between Count I (the only remaining claim) and Count II (which has been dismissed). Count I alleges that the use of lethal injection violates the Constitution because of Plaintiff's cavernous hemangioma and related complications. Plaintiff does not contend that using different chemicals, or administering chemicals in a different way, will diminish the risk of pain and suffering. According to Count I, the only way to significantly diminish the pain and suffering resulting from lethal injection is to execute Plaintiff with lethal gas. In contrast, Count II alleged that Plaintiff "will experience pain and suffering unless certain changes are made in the lethal injection protocol, and the failure to make these changes constitutes a deliberate indifference to his serious medical needs in violation of the Eighth Amendment." (Doc. 63, p. 14.) The Court dismissed Count II because the Fourth Amended Complaint did not "allege sufficient facts to indicate that the staffing and planning procedures Defendants intend to utilize will create a substantial risk of serious harm" and "does not allege what procedures should be employed (other than not performing an execution)." (Doc. 63, pp. 14-15.)

The differences in the allegations (and fates) of Counts I and II formed the basis for several decisions in the Scope Order, including the Court's decision regarding information about the execution team. The Scope Order's discussion of the issue is set forth below:

> Plaintiff explains that "given the severity of his medical condition, the training and qualifications of the execution team members are especially important, as the risks of a botched or excruciating execution are particularly great in his case." (Doc. 100, p. 6.) However, his remaining claim does not allege that changing the execution team members will significantly decrease the risk of pain and suffering, so the relevance of this information is not evident. This information might have been relevant to Count II, but Count II was dismissed. The Court holds that detailed discovery about the execution team members is unnecessary to resolving the issues in this case. Plaintiff may obtain, as part of the discovery regarding the execution protocol, information generally describing the composition of the team (*e.g.*, the number of doctors, nurses, anesthesiologists) as well as the functions they will perform. Finally, in light of the lack of a relationship between the execution team members and the specifics of Plaintiff's claim, the Court discerns no need for Plaintiff to learn the identities of, or depose, the execution team members.

(Doc. 105, p. 8 (footnote omitted).) Thus, the additional information Plaintiff now seeks is barred by the Scope Order.

Plaintiff contends that the Scope Order should be amended because his claim requires he prove that the execution protocol presents a substantial risk of serious harm and that an alternative method of execution will significantly reduce that risk. However, the substantial risk of serious harm that forms the basis for Count I does not depend on the execution team's training and experience. For instance, while

Count I alleges that the execution protocol will cause him to hemorrhage, cough, choke and suffocate, thereby suffering an "excruciating execution," it does not allege that this risk is due to the execution team's training or expertise. Count I also does not allege that more or different training will decrease these risks.

Relatedly, Plaintiff contends that information about the individuals involved in his execution – including their training – is relevant "because during various depositions in this case, Defendants made clear that there are various unwritten and/or informal protocols that Defendants and the execution team rely upon to carry out an execution – many of which are contingent on the degree of training of the medical team members." (Doc. 169, p. 10.) As an example, it may be necessary to utilize a central line or a cutdown procedure, and Plaintiff wants to explore the execution team members' qualifications for performing these procedures. However, this explanation is no different than the explanation Plaintiff originally offered prior to entry of the Scope Order, and it remains the case that Plaintiff's claim does not depend upon either the manner in which a lethal injection is performed or the qualifications of the execution team members. Discovery is appropriate to determine how a central line or a cutdown procedure affects the risk of pain and suffering Plaintiff has identified. However, Plaintiff's claim does not depend on "how well qualified" the execution team is.

Finally, Plaintiff suggests that the execution team's qualifications and training are at issue because some information on these topics has been divulged during discovery. (Doc. 169, pp. 3-4; *see also* Doc. 164, pp. 13-14.) The Court does not agree that mere discussion of or reference to a topic during discovery makes further

discovery on that matter appropriate. There is no claim remaining that requires consideration of the execution team's qualifications and training, so the Court concludes that the Scope Order sets proper limits on discovery. Plaintiff's request for additional details about the execution team members and access to their depositions from other cases is denied.

II. Privilege Log

Plaintiff served Interrogatories and a Request for Production of Documents ("RFP") in November 2016. Defendants responded in December 2016.[1] In most respects, Defendants' responses (1) raised "non-privilege based" objections, including objections based on vagueness, temporal scope, or perceived violations of the Scope Order, (2) reserved various privileges depending on how the other objections were resolved, (3) provided responsive documents, or (in some cases) (4) described documents that were privileged. The parties discussed Defendants' objections but did not agree on a resolution.

In presenting the issues to the Court at this juncture, Plaintiff focuses on Defendants' claims of privilege and argues the Defendants have not provided a privilege log as required by Rule 26(b)(5). Defendants rely on Rule 34(b)(1)(C) to contend that their obligation was fulfilled so long as they "explicitly identified in the discovery response (and production log) if a relevant privileged record communication was withheld and explained the basis for that privilege." (Doc. 173, p. 16.) The Court disagrees with Defendants

[1] The discovery requests issued to each Defendant are similar, as are the responses. Plaintiff has supplied the requests posed to Defendant George Lombardi (and his responses) to represent all of the requests and responses.

and concludes that Rule 26(b)(5)(ii) – which specifically describes the contents of a privilege log – controls.

However, a privilege log is required only "[w]hen a party withholds information *otherwise discoverable*," Fed. R. Civ. P. 26(b)(5)(A) (emphasis supplied), and with Defendants' other objections unresolved it has not been established that Defendants are withholding any discoverable information because it is privileged. Thus, before addressing Defendants' obligations under Rule 26(b)(5), the Court must determine whether anything Plaintiff has not been provided is discoverable.

Interrogatory #1 asks Defendants to identify all policies and protocols that apply to execution by lethal injection. Defendants provided the current written execution protocol, and Plaintiff is not entitled to anything further.[2] Defendants also suggest a "closed portion" of the protocol is not being disclosed pursuant to § 546.720 of the Revised Missouri Statutes, which relates to identification of members of the execution team; this is sufficient to identify what has been withheld and is functionally equivalent to the information required by Rule 23(b)(5).

Interrogatory #2 asks for policies and protocols related to execution by lethal gas. Defendants initially answered this interrogatory by stating that the Department of Corrections ("DOC") "does not use lethal gas and has no lethal gas protocol." In a Supplemental Response

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[2] At least, it *appears* from the text of Defendants' answers that they provided the current written execution protocol. The Court does not know what documents are identified by the specified Bates Numbers. Regardless, the current written execution protocol *should* be provided to Plaintiff, and the Court's rulings presume this has occurred.

(made after the parties conferred), Defendants pointed out that the DOC last utilized lethal gas for an execution in 1965. Plaintiff's explanation as to why the protocols and procedures from 1965 are pertinent are not persuasive, and the Court agrees with Defendants that it exceeds the needs of this case for them to ascertain the protocols for a procedure last used in 1965. The Court further notes that Defendants did not assert any privileges in their response to this interrogatory, so there are no privilege issues to be considered.

Interrogatory #3 asks for several categories of information related to the chemicals used during a lethal injection. The Court concludes that much of the information sought is unnecessary given the claim that remains in the case. Plaintiff's claim does not depend on "the manner in which the chemicals are prepared and administered" or "the process and reasoning behind the selection of those particular chemicals and their respective doses." Therefore, this information need not be provided; and, given that the only privileges asserted relate to these matters, there is no need for Defendants to prepare a privilege log. Plaintiff is entitled to information that identifies the chemicals to be used, the doses, and "any risks, side-effects, or complications that could arise from their use." However, Defendants supplied information identifying the chemicals to be used and the manner in which they will be administered. Defendants also stated that they lack the medical training necessary to offer their own opinions about possible risks, side effects and complications, and they have no documents addressing these issues. Thus, Plaintiff has received answers to the portions of Interrogatory #3 to which he is entitled.

Interrogatory #4 is similar to Interrogatory #3 in that it asks Defendants to describe the chemicals that are, or might be, used by DOC when using lethal gas as the means of execution. Defendants stated that there are currently no such chemicals, and consistent with its ruling regarding Interrogatory #2 the Court is not convinced that the chemicals used in 1965 (or before) are relevant to this case. Nonetheless, Defendants' Supplemental Response states that DOC used cyanide gas, and Defendants are not required to speculate as to what chemicals would be used if DOC were to start utilizing lethal gas as a means of execution. For these reasons Defendants' response to Interrogatory #4 (including the Supplemental Response) provides all the information to which Plaintiff is entitled and nothing has been withheld based on a privilege.

Interrogatory #5 seeks "the process by which the current drug protocols were selected and included in the Execution Procedures," but the Scope Order already determined that this was not allowed. (Doc. 105, p. 6-7.) Therefore, Defendants need not document their claims of privilege.

Interrogatory #6, which asks Defendants to identify all documents "related to the viability or feasibility of lethal gas as an execution method in Missouri," is addressed not only by Defendants' initial response and Supplemental Response, but also by an e-mail, (Doc. 177-2), Defendants sent to the Court and to Plaintiff's counsel on March 30, 2017, ("the March 30 e-mail"). Initially, Defendants contended the request was overly broad in that it was not limited in time – an objection the Court believes was appropriate. Defendants also asserted attorney/client, work product, and deliberative process privileges. In the Supplemental Response,

Defendants contended they do not have any responsive documents. The March 30 e-mail describes a search of the e-mails of all Defendants and of attorneys in the DOC's general counsel's office, using the search terms "lethal gas" and "gas chamber." The search uncovered six documents, and Defendants contend all are privileged as attorney/client communications or attorney work product.[3] The e-mail further identifies the six e-mails by date, author, recipient and subject matter. The Court concludes that the e-mail constitutes an adequate privilege log for the six documents referenced therein.

Interrogatory #7, Interrogatory #8, and Interrogatory #11 are similar to Interrogatory #1 in that they asks [sic] for details about particular steps in the lethal injection protocol. Defendants' responses to Interrogatory #7, Interrogatory #8 and Interrogatory #11 are similar to those they provided for Interrogatory #1; the Court's ruling is the same as well.

Interrogatory #9 essentially asks Defendants to identify roles, responsibilities and functions of the execution team members. Notwithstanding Defendants' various objections they have supplied this information. Moreover, what Defendants has supplied is consistent with the Scope Order, (*see* Doc. 105, p. 8), and the Court's discussion in Part I of this Order. The only privileged information withheld is the names of the execution team members, and as discussed in the context of Interrogatory #1 the information supplied satisfies Defendants' obligations under Rule 26(b)(5).

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[3] Plaintiff references the March 30 e-mail in his Reply Suggestions, but presents no argument suggesting that the documents identified therein are not privileged.

Interrogatory #10 is similar to Interrogatory #9, but it asks for identification of members of the execution team if execution is performed through the use of lethal gas. The fact that DOC does not utilize lethal gas in executions answers this question. The Court further notes that Defendants did not assert any privileges in their response to this interrogatory, so there are no privilege issues to be considered.

Interrogatory #12 is similar to Interrogatory #2 in that it asks about the process by which an inmate would be executed through the use of lethal gas. Defendants' answer is similar to that which was provided for Interrogatory #2, and the Court's ruling is the same as well.

Interrogatory #13 asks for detailed information about the execution team members' training. This issue has been addressed by the Scope Order, (Doc. 105, p. 8), and the discussion in Part I of this Order.

Interrogatory #14 asks for all "contingency plans that exist for when any complications arise during an execution by lethal injection." Plaintiff has been supplied the DOC's execution protocol, so Plaintiff has been supplied all formalized contingency plans for anticipated complications. Obviously, there might be unanticipated complications – but there is no way for Defendants to describe contingency plans for events that are not anticipated. And, a request for all unwritten contingency plans is too vague. The Court concludes Defendants have answered this interrogatory by providing the DOC's execution protocol. The Court further notes that Defendants did not assert any privileges in their response to this interrogatory (other than one related to the identification of the execution team members), so there are no privilege issues to be considered.

Interrogatory #15 asks for contingency plans for executions by lethal gas; Defendants respond that DOC does not perform executions by lethal gas, which answers the interrogatory. The Court further notes that Defendants did not assert any privileges in their response to this interrogatory, so there are no privilege issues to be considered.

Interrogatory #16 follows up on the preceding two interrogatories by asking if there are no contingency plans, why it is that none exist. Defendants' response explains that there are no contingency plans with respect to the use of lethal gas because DOC does not utilize lethal gas. While there are no responses purporting to explain the lack of additional contingency plans in the lethal injection protocol, the request is too vague and broad to be enforced. There are no objections to this response (based on privilege or otherwise), and there is no need for the Court make a further ruling.

Interrogatory #17 asks for information about "failed executions or executions that did not follow the applicable protocol in effect at the time . . . including any and all information related to why those executions failed and any steps or actions taken in response." Defendants posed an objection, noting (correctly) that this interrogatory exceeds the bounds set by the Scope Order. Then, notwithstanding its objection, Defendants answered that there have been no such executions. The Court deems this response sufficient, particularly in light of the restrictions set in the Scope Order. The Court further notes that Defendants did not assert any privileges in their response to this interrogatory, so there are no privilege issues to be considered.

Interrogatory #18 would require Defendants to identify all persons responsible for monitoring Plaintiff's

medical condition in the weeks before the execution, as well as information about such persons. Defendants presented a series of objections, one of which is based on relevance. The Court concludes this objection should be sustained. Plaintiff's claim is that (1) use of lethal injection – regardless of the chemicals utilized and regardless of the procedures utilized – will cause a serious risk of severe pain and suffering and (2) execution with lethal gas will significantly reduce this severe risk. Count II of Plaintiff's Fourth Amended Complaint alleged that Plaintiff's rights were violated because Defendant did not have a plan for taking necessary steps to assess Defendant before and during the execution, but the Court dismissed Count II. Interrogatory #18 might have been relevant to Count II, but it is not relevant to the sole remaining count.

Interrogatory #19 asks Defendants to identify all communications, records, or correspondence involving Plaintiff's medical condition, as well as his "physical or mental fitness for execution." Defendants present several objections, some of which are based on privilege and some of which are not. The Court does not find all of them applicable.

Defendants objected because the interrogatory is not specific as to time and because Plaintiff "is not currently under an active warrant of execution." These objections are overruled. The lack of a time frame does not make this request burdensome; Defendants can (and should) provide Plaintiff with all information they have about his medical condition. The Court also holds the fact that there is or is not currently a warrant of execution is no bar to providing the information.

Defendants also objected that Plaintiff's mental condition is not an issue in this case, and they are

technically correct. Nonetheless, it seems far easier to simply provide Plaintiff with all of the medical records about himself than try to parse the documents. After all, Plaintiff is essentially requesting his own medical records.

Despite these objections, Defendants provided a response. The Court does not know what was provided; as indicated, the preferred course would have been for Defendants to simply provide Plaintiff with all of the medical information about him that they have (which, based on Defendants' response to RFP #15, may be what they did – and without objection). More importantly, in addition to providing a response, Defendants asserted three privileges: attorney/client, state secrets, and a concern that answering will identify members of the execution team. The third privilege is understandable, but it is not clear how the first two privileges apply and Defendants provide no explanation for them. It may be that the state secrets privilege is intended to be co-extensive with the concern about identifying members of the execution team, but if this is the case a document that identifies a person as a member of the execution team could perhaps be redacted in a manner that allows Plaintiff to discover information relating to his own medical condition. This discussion (particularly the Court's inability to ascertain why the privileges even apply) demonstrates the need for Defendants to provide a privilege log that identifies all documents responsive to this interrogatory that have been withheld.

Within ten days, Defendants are directed to respond to this interrogatory in full, and prepare a privilege log for any documents they withhold based on a privilege. In identifying the documents on the privilege log, Defendants should describe the document in terms of

its date, the nature or type of document, the author(s) and recipient(s), a summary of its contents or subject matter, and the reason why the document is privileged.

Interrogatory #20 requires Defendants to describe any research of alternative execution methods "including execution by lethal injections, lethal gas, firing squad or electrocution, and the feasibility of any of those methods." Defendants initially objected for a variety of reasons, including (1) the request exceeds the bounds set by the Scope Order and (2) attorney/client, work product, and deliberative process privileges. In their Supplemental Response, Defendants stated they had "not conducted any research and have had no communications concerning lethal gas as a method of execution."

The Supplemental Response provides a response to the permissible aspects of Interrogatory #20. As presently phrased, this interrogatory is broader than permitted by the Scope Order, which allowed Plaintiff to seek information related to lethal gas but noted that "it is the only alternative method [of execution] he has alleged, so it is the only method for which discovery is justified and the breadth of this category must be limited accordingly." (Doc. 105, p. 8.) Moreover, as the Court has stated previously, Count I does not allege that other methods of lethal injection will alleviate the risk of severe pain and suffering; therefore, information about "other ways" to conduct lethal injection are irrelevant. Given that Defendants fully responded to the proper aspects of this interrogatory by stating that no research about lethal gas has occurred, there is no need to consider the privileges.

RFP #1 is similar to Interrogatory #1 in that it essentially asks for the execution protocol. To that

extent, the Court's ruling is the same as with Interrogatory #1: Plaintiff should receive the execution protocol. RFP #1 goes further, however, seeking documents "related to the consideration and selection of the current protocols." The Scope Order determined that this was not a permissible area of discovery. (Doc. 105, p. 6.) RFP #1 also seeks documents "related" to the protocol; to the extent this seeks something beyond the protocol itself, it is vague in a myriad of respects. Assuming that Defendants provided the execution protocol, (*see* page 6, n.2), Plaintiff has received all to which he entitled and there is no need to consider the privileges Defendants have asserted.

RFP #2 requests several categories of documents related to the documents used in lethal injection. Most of the information sought was addressed in the Scope Order, (Doc. 105, p. 7), or the Order issued following the March 15 conference. (Doc. 163, ¶ 2.) The only category that was not previously addressed is Plaintiff's request for information about "potential chemicals" that could be used in a lethal injection. Given that Plaintiff's claim does not depend on the chemicals used, and he has not alleged that the use of alternative chemicals will reduce the risk of pain and suffering, Defendants need not respond to this aspect of RFP #2. These rulings obviate the need to consider Defendants' asserted privileges.

RFP #3 asks for documents related to "the actual or potential chemicals" that might be used during an execution by lethal gas. Defendants object to the extent that it seeks information about the chemicals/gasses used in 1965 and before, and for the reasons discussed previously the Court agrees that such information need not be produced. Defendants also pose an objection based on deliberative process privilege, but

it is not clear whether any responsive documents more current than 1965 have been withheld. If, for example, the DOC has documents regarding the current availability of chemicals that could be used for lethal injection, such documents might be relevant and also might not be subject to the privilege. Assuming any such documents exist, Defendants must produce the documents or prepare a privilege log for any documents that are not produced based on a privilege. If no such documents exist, Defendants must certify as such.

RFP #4 seeks documents "regarding the DOC's selection, consideration or rejection of any actual or potential drugs to be used during an execution by lethal injection or lethal gas," then sets forth a series of specific subjects Plaintiff considers encompassed by this request. Defendants first raise a non-privilege based objection, contending that to the extent RFP #4 calls for documents related to the selection of the drugs to be used during lethal injection, the request exceeds the bounds set by the Scope Order. The Court agrees. (Doc. 105, p. 6.) Therefore, the request must be limited to the subject of lethal gas, and when so limited RFP #4 is very similar to RFP #3 – and in that respect the Court's ruling is also the same.

RFP #5 asks for documents "regarding the actual or potential use of a paralytic drug during an execution by lethal injection or lethal gas, including all documents related to the purpose the paralytic serves, if any, during such an execution." Defendants first state that the lethal injection protocol does not use a paralytic drug, so there are no responsive documents related to the current protocol. The Scope Order precludes discovery on alternative methods of lethal injection, so there is no need to consider whether any documents related to alternative methods are also

privileged. Finally, given that DOC has no protocol for the use of lethal gas, it stands to reason that there are no responsive documents available.

RFP #6 is similar to Interrogatory #6 and the Court's ruling is the same.

RFP #7 is similar to Interrogatory #20 and Interrogatory #12, and the Court's ruling is the same.

RFP # 8 is similar to Interrogatory #9 and the Court's ruling is the same.

RFP #9 is similar to Interrogatory #13 and the Court's ruling is the same.

RFP #10 is similar to portions of various interrogatories; it asks for documents related to the procedures "to prepare a prisoner for execution, including . . . steps taken to determine a prisoner's physical and/or mental fitness of execution." With the dismissal of Count II, information related to the manner in which Plaintiff is assessed before execution is not relevant. Assuming Plaintiff has been provided the execution protocol, the relevant portions of this question has been adequately answered and there is no need to further consider the privileges asserted by Defendants.

RFP #11 asks for documents "regarding the monitoring of prisoners during an execution by lethal injection or lethal gas." Defendants have confirmed there is no protocol for execution by lethal gas. With the dismissal of Count II – including its claim that the protocol does not require adequate assessment of the prisoner during the execution – detailed information is not necessary. The Court deems it sufficient for Plaintiff to have received the execution protocol.

RFP #12 is similar to Interrogatory #14 and the Court's ruling is the same.

RFP #13 is similar to Interrogatory #17 and the Court's ruling is the same.

RFP #14 and RFP #15 were answered without objections (based on privilege or otherwise) or qualifications, so there is nothing for the Court to rule on.

RFP #16 asks for documents identifying those who treated or provided medical care to Plaintiff, "including, but not limited to, resumes, administration records, employee files, and treatment records." Defendants supplied some documents identified only by their Bates Numbers, and then objected because medical services are provided by an outside vendor and some documents (e.g., resumes and employee files) are not in Defendants' possession. Plaintiff provides no basis for overruling this objection and there is no privilege for the Court to consider.

RFP #17 and *RFP #18* ask for documents and records related to Plaintiff's medical condition, and Defendants object because there is no limitation as to time or scope. They are therefore similar to Interrogatory #19. (They are also similar to RFP #15, which – in contrast to RFP #17 and RFP #18 – Defendants answered without objection.) The Court's ruling on RFP #17 and RFP #18 is the same as for Interrogatory #19: Defendants should provide Plaintiff with all of his medical records, and prepare a privilege log for any documents that are withheld based on a privilege. RFP #18 also asks for all documents "regarding Plaintiff;" this aspect of RFP #18 is discussed in Part III of this Order.

RFP #19 requires Defendants to supply "all documents referred to in, or used to answer or respond to" the Fourth Amended Complaint, the interrogatories, or the motions. Defendants' response refers to the documents that have been identified and supplied, and

objects to supplying anything beyond that because the request is "unduly burdensome, overbroad," and calls for documents that are subject to the attorney/client and work product privileges. Given RFP #19's breadth and the subjects addressed, the Court agrees and deems Defendants' response to be sufficient without further identification of documents in a privilege log.

RFP #20 asks for "[a]ll documents which refer or relate to, or support or refute, any affirmative defense you have asserted or will assert." Defendants' response is similar to their response to RFP #19. And, as with RFP #19, the Court deems Defendants' response sufficient.

III. E-Mails

During the March 15 conference, the Court discussed Plaintiff's request for a certification from each Defendant that he undertook a good faith effort to procure responsive documents and fully respond to interrogatories. Defendants' counsel confirmed that such a certification could be produced, and the Court stated "[i]f the defendants, then, could provide a certification to [Plaintiff] that they undertook all good faith effort[s] to procure documents and answer all interrogatories, then that seems to address this issue." (Doc. 164, p. 22.) In the Order issued after the conference, the Court directed that "[w]ithin five business days, each Defendant shall provide a certification confirming that they undertook a good faith effort to procure documents responsive to Plaintiff's discovery requests, and to provide answers to all interrogatories propounded by Plaintiff." (Doc. 163, ¶ 1.) Defendants complied with this directive. (Doc. 165.)

The Motion to Compel alleges Defendants' certifications are insufficient because they do not describe what Defendants did to search their e-mails. Defendants

do not respond to this contention; instead, they argue that they produced 76 e-mails and that this seemingly-low number is unsurprising given the Scope Order's limitations and the fact that lethal gas has not been used since 1965. (Doc. 173, p. 25.)

Defendants sent the March 30 e-mail to the Court and Plaintiff's counsel the day after they responded to the Motion to Compel. In that e-mail, Defendants revealed that in December 2016 they searched all DOC employee e-mails for the term "Bucklew" in order to ascertain the breadth of the documents responsive to RFP # 18, part of which asks for all documents "regarding Plaintiff." The search generated more than 38,000 documents. (Doc. 177-2, p. 3.) It may well be that all of the relevant, non-privileged e-mails have been produced in response to other discovery requests – but there is no way to know for certain. In their Reply Suggestions, Plaintiff represents that this is the first time that a search yielding more than 38,000 results has been mentioned, and they correctly contend that "[i]f Defendants had concerns about the number of results, the proper course of action would have been to raise the issue with Plaintiff's counsel," which would have allowed the parties to refine the search or adopt some other course to insure that all relevant e-mails were produced.[4]

Given the circumstances, the Court directs the parties to confer to develop search terms to further narrow the 38,000 e-mails identified in the December

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[4] As stated, the e-mail search was conducted in conjunction with RFP #18. The Court notes that Defendants' response to RFP #18 generally objects that the "request is vague, overly broad, and unduly burdensome" but does not mention that a search was conducted using "Bucklew" as the search term and that 38,000 e-mails were found.

2016 search. They should also discuss whether the search should be limited temporally (although there are no e-mails from before 2008 because e-mails before that date are not available) or in terms of whose e-mails should be searched.

Finally, the parties should discuss whether additional searches of DOC employees' e-mails should be conducted in order to insure that all e-mails responsive to Plaintiff's discovery request have been produced. It is possible that any searches combining "Bucklew" with additional terms will produce all relevant documents – but this point is far from certain. For instance, the March 30 e-mail also discusses a search of the Defendants' e-mails for the terms "lethal gas" and "gas chamber." The parties shall discuss whether this search should be expanded to the e-mails of others at DOC, or whether other searches utilizing other terms should be conducted.

IV. Conclusion

Plaintiff's Motion to Compel is granted to the extent described in Part III, and the parties shall confer within seven days of this Order and a new search of the e-mails should commence as soon as possible thereafter. The Motion to Compel is also granted with respect to Interrogatory #19 and RFP #3, RFP #4, RFP #17, and RFP #18 as described in Part II, and the responses called for by the Court's rulings should be completed within ten days. Plaintiff's Motion is denied in all other respects.

IT IS SO ORDERED.

/s/ Beth Phillips
BETH PHILLIPS, JUDGE
UNITED STATES DISTRICT COURT

DATE: April 11, 2017

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STATE OF MISSOURI

[LOGO]

DEPARTMENT OF CORRECTIONS

PRE-EXECUTION SUMMARY OF MEDICAL HISTORY

Offender Name: Russell E. Bucklew

Age: 45 Weight: 168 Height: 5'8

ALLERGIES: Toradol, Compazine

Most Recent Vital Signs:

Temp: 98° Date: 5/2/14

Pulse: 109 Date: 5/2/14

Resp: 20 Date: 5/2/14

B/P: 142/84 Date: 5/2/14

Pulse Oximetry: 99% Date: 5/2/14

Current Medications: Tramadol, clonazepam, hydroxyzine, gabapentin, ranitidine

Prior Surgeries: Fracture Right hand & arm, thoracotomy

Medical Problems: Gunshot wound to head 1996, Cavernous hemangioma-right half of maxilla (upper jaw) and upper lip present for 20 plus years, Hard of hearing.

Please complete the following questions based upon a review of the offender's healthcare and confinement records.

	Yes	No	Unknown
1. Has the offender recently had a cold or the flu? .....1.		✓	

2. Does the offender experience shortness of breath with activity? .....2.		✓	
3. Does the offender have Asthma, bronchitis, or any other breathing problems? .....3.		✓	
4. Does the offender wake up at night short of breath? .....4.		✓	
5. Has the offender ever had chest pain/heart attack/palpitations?5.		✓	
6. Does the offender have a heart condition/high blood pressure history or heart failure? .....6.		✓	
7. Does the offender have Diabetes or Thyroid disease? .....7.		✓	
8. Has the offender ever had Hepatitis, Jaundice, or any Liver disease? .....8.		✓	
9. Does the offender have any type of Kidney disease? .....9.		✓	
10. Does the offender have a history of Ulcers, Hiatal Hernia, or Gastric Reflux disease? .....10.	✓		
11. Does the offender have back or neck pain? .....11.	✓		

12. Does the offender have any numbness, weakness, or paralysis in the offender's arms or legs?.....12.		✓	
13. Does the offender have a history of stroke? .....13.		✓	
14. Does the offender have any muscle or nerve disease (Epilepsy or Parkinson's)? ....14.		✓	
15. Has the offender ever had a blood transfusion? .....15.			✓
16. Does the offender smoke? Has the offender ever smoked? Packs/day 2 Years smoked 20 yrs .....16.	✓		
17. Does the offender have a history of IV drug use? .....17.		✓	

Explanation of any YES answers: 11. Complains of pain in jaw area 10. Acid reflux (medical problems)

Completed By: /s/ Deloise Will BSN Date: 5/7/14

STATE OF MISSOURI
COUNTY OF WASHINGTON

CERTIFICATION OF RECORDS

Before me the undersigned authority, personally appeared Robert Savage, who, being by me duly sworn, deposed as follows:

My name is Robert Savage, I am of sound mind, capable of making this affidavit, and personally acquainted with the facts herein stated.

I am a Corrections Case Manager II assigned as the Grievance Officer at Potosi Correctional Center (PCC).

Part of my assigned job duties include the custody and control of all original Grievances as they pertain to offenders at said PCC.

The original is a complete and accurate copy of PCC-14-545, filed by Offender Bucklew, Russell, Register No. 990137, as it appears in my file.

Further the affiant saith naught.

/s/ Robert Savage
Signature of Affiant

In witness whereof I have hereunto subscribed my name and affixed my official seal this 28th day of April, 2016.

/s/ Timothy J. McFarland
Notary Public

My Commission Expires: Dec. 11, 2016

[Seal] Notary Public

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Department of Corrections
Medical Accountability Records System
Lay-In/Restriction

AFP300B
INQUIRE

12/02/14
18:05:43

DOC ID: 00990137 BUCKLEW RUSSELL E

Nurse/Doctor: LARKIN DIANA L DLL001EM

Lay-In/Restriction:
D0002 DRESSING SUPPLIES NEEDED IN CELL

Limits:

Comments: MAY HAVE GAUZE PADS AND BIOHAZARD BAG FOR C/O BLEEDING IN MOUTH

Assistive Devices:

Begin Date: 05/30/2014 Begin Time: 09:32 A

End Date: 05/30/2015 End Time: 11:59 P

Discontinue Date: 00/00/0000

F1=Help F3=Exit F12=Previous F13=Lay-In/Rest.
F14=Comments F15=Devices

STATE OF MISSOURI
COUNTY OF WASHINGTON

CERTIFICATION OF RECORDS

Before me the undersigned authority, personally appeared Robert Savage, who, being by me duly sworn, deposed as follows:

My name is Robert Savage, I am of sound mind, capable of making this affidavit, and personally acquainted with the facts herein stated.

I am a Corrections Case Manager II assigned as the Grievance Officer at Potosi Correctional Center (PCC).

Part of my assigned job duties include the custody and control of all original Grievances as they pertain to offenders at said PCC.

The original is a complete and accurate copy of PCC-16-57, filed by Offender Bucklew, Russell, Register No. 990137, as it appears in my file.

Further the affiant saith naught.

/s/ Robert Savage
Signature of Affiant

In witness whereof I have hereunto subscribed my name and affixed my official seal this 28th day of April, 2016.

/s/ Timothy J. McFarland
Notary Public

My Commission Expires: Dec. 11, 2016

[Seal] Notary Public

COMPLETE MEDICAL RECORD HISTORY

AFS923A

[80] DOC ID OFFENDER

00990137 RUSSELL E BUCKLEW

DOCTOR ENCOUNTER APPOINTMENT DATE 03/20/2013

TIME 07:30 A

SHOW UP Y PCC

SUBJECTIVE

HISTORY OF COMPLAINT AND REASON S/HE NEEDS OBSERVATION

20130320 110643

44 yo c known large cavernous hemangioma. He reports he had severe pain upon leaving his cell last PM, became lightheaded and ? LOC but no injury. He was CODE 16; nl vital sings [sic], and pt did not want any further intervention.

Later he was another CODE 16 c/o facial pain c bleeding from hemangioma.

Pt was brought to medical and on-call physician ordered Vicodan [sic]. Bleeding ceased c pressure per gauze.

This AM Mr. Bucklew has eaten, up ad lib, no continued bleeding and is ready to return to his H-U.

Past Med Hx: ENT recommendation per note of 4/12/12 that he does not advised [sic] any additional intervention.

OBJECTIVE
PERTINENT PE FINDINGS, LAB OR XRAY, VS INCLUDING WEIGHT

General: pt was on a mattress on the floor from which he arose and stood s difficulty. Mr. Buckles did not appear in any distress.

Face: + cavernous hemangioma Rt side of upper lip, to Rt side of nose, buccal mucosa, hard palate, and large uvula. No bleeding found.

ASSESSMENT
STATUS OF PATIENT

-Cavernous hemangioma; bleeding ceased and pt is stable.

20130320 110644

PLAN
TREATMENT PLAN

He may be released back to his H-U. No change in care.

DOCTOR WDM00#EM WILLIAM D MCKINNEY

SPECIFIC CHARTING INFORMATION

20130320 080253

03/20/2013 Doctor/Dentist encounter MSR filed

MSR DATE TIME COMPLAINT

03/20/2013 10:15A QMHP - CHRONIC CARE ENCOUNTER

SPECIFIC CHARTING INFORMATION

20130320 101549

03/21/2013 Technician/MH encounter MSR filed

MSR DATE TIME COMPLAINT

03/20/2013 12:13 P INFIRMARY CARE-NURSE

NURSE ENCOUNTER APPOINTMENT DATE 03/20/2013 TIME 07:00 A SHOW UP Y PCC

20130320 122216

SUBJECTIVE
PATIENT COMMENTS: tcu rounds
_ PAIN ON 0-10 SCALE

* * *

[110] DOC ID OFFENDER

00990137 RUSSELL E BUCKLEW

SUBJECTIVE CONTINUATION FROM PREVIOUS PAGE

20131028 084732

located in area of Rt eye and ear; awakening him from sleep early yesterday AM.

Pt reports, "it blew" meaning started bleeding in Rt post area of his mouth c relief.

Pt had dizziness c above pain; now much better.

OBJECTIVE

BP 124/082 PL085 RS016 TP0978 WT162 BS000 PF000

Does not appear in acute distress this AM. Gait is fluid, steady, and on/off exam table c ease.

Oral cavity: large cavernous hemangioma on Rt, no current active bleeding.

ASSESSMENT

- Facial cavernous hemangioma.

PLAN

20131028 084733

- Pt understands this is expected course for his problem as previously described by ENT, Dr. Zitsch per note of 4/18/12.

- Pt will need gauze and biohazard bags PRN due to bleeding.

DOCTOR WDM00#EM WILLIAM D MCKINNEY

SPECIFIC CHARTING INFORMATION
10/28/2013
Doctor/Dentist encounter MSR filed

20131027 184003

MSR DATE TIME COMPLAINT

10/27/2013 10:00 P ACCIDENT/CODE 16

NURSE ENCOUNTER APPOINTMENT DATE 10/27/2013 TIME 09:00 P SHOW UP Y PCC

20131027 220713

SUBJECTIVE
code 16 called

OBJECTIVE
905pm pt in room, was actively bleeding from the mouth, gauze was in place upon arrival,bp 128/90 alert x3, c/o blurry vision, pain on rt side of face. Bleeding stopped after a few minutes with gauze reapplied. resp even/nonlabored, skin pale w/d. Pt stated "didnt eat" "I know there's nothing you can do for me". Pt received prn pain med earlier this date. Assisted to room to rest on bed. informed of DSC made for in the am for earlier c/o. see previous note.

ASSESSMENT
ALT IN COMFORT

PLAN
DSC

NURSE ARM00#EM ANGELA R MALLOY

BILL SUMMARY
1st Session of the 55th Legislature

Bill No.:	HB1879
Version:	INT
Request Number:	6354
Author:	Rep. Christian
Date:	2/4/2015
Impact:	Minimal

Research Analysis

Please see previous summary of this measure.

Prepared By: Marcia Goff

Fiscal Analysis

HB1879 would allow death by nitrogen hypoxia to inmates facing the death penalty. Currently, it costs the Department of Corrections approximately $500.00 per execution. This number could vary, but because of secrecy laws regarding Oklahoma executions, it is impossible, at this time, to get a precise figure.

Nitrogen hypoxia would be relatively cost effective, and could, in fact, have a positive effect on DOC's budget. The costs would be minimal and include the one time purchase of a gas mask (similar to what one experiences at the dentist), and the price for a canister of nitrogen.

Prepared By: Joshua Maxey

Other Considerations

None.

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IN THE SUPREME COURT OF
THE STATE OF OKLAHOMA
IN THE DISTRICT COURT OF
OKLAHOMA COUNTY

[Filed: May 19, 2016]

Case No. SCAD-2014-70
D.C. Case No. GJ-2014-1

IN THE MATTER OF THE MULTICOUNTY
GRAND JURY, STATE OF OKLAHOMA

INTERIM REPORT NUMBER 14

The Fifteenth Multicounty Grand Jury of Oklahoma received evidence in its session held on May 17 through 19, 2016. In this session, the grand jury received testimony of witnesses, and numerous exhibits, in several different matters. The grand jury also returned one (1) Indictment which was returned to the Presiding Judge in Open Court for review and further action pursuant to law.

FINDINGS OF THE FIFTEENTH MULTICOUNTY GRAND JURY AS TO THE USE AND ATTEMPTED USE OF POTASSIUM ACETATE BY THE OKLAHOMA DEPARTMENT OF CORRECTIONS IN THE EXECUTION OF INMATE CHARLES FREDERICK WARNER AND THE SCHEDULED EXECUTION OF INMATE RICHARD GLOSSIP

The Fifteenth Multicounty Grand Jury of Oklahoma received evidence in its sessions held in October, November, and December 2015, and January, February, March, April, and May 2016, related to the use and

attempted use of potassium acetate by the Oklahoma Department of Corrections ("Department") in the execution of Charles Frederick Warner ("Warner") and the scheduled execution of Richard Eugene Glossip ("Glossip"). The Multicounty Grand Jury finds that Department of Corrections staff, and others participating in the execution process, failed to perform their duties with the precision and attention to detail the exercise of state authority in such cases demands, to wit:

- the Director of the Department of Corrections ("Director") orally modified the execution protocol without authority;
- the Pharmacist ordered the wrong execution drugs;

* * *

grand jury subpoenas, including responsive documents containing unredacted privileged information. Numerous Department employees have voluntarily participated in interviews with investigators assisting this Grand Jury, and several Department employees have provided testimony.[391]

a. The Department should retain experts to advise the State on the newly-enacted alternative to lethal injection—Nitrogen Hypoxia.

During his testimony before the Grand Jury, the Department's General Counsel discussed the challenges the Department faces in carrying out executions by lethal injection. The Department's General Counsel

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[391] Indeed, the Director flew back to the State of Oklahoma on extremely limited notice to accommodate this grand jury's schedule.

explained that qualified doctors are often unwilling to assist or are prohibited from assisting in executions due to their medical ethics and professional societies' rules, even banning certain types of doctors from even being present at executions. Further, obtaining proper drugs from pharmacies has become increasingly difficult since pharmaceutical companies are limiting their supplies of lethal injection drugs,[392] and pharmacies themselves are often unwilling to supply drugs to the Department due to privacy and safety concerns.

During this session, the Multicounty Grand Jury also heard testimony from Doctor A and Professor A regarding the viability of nitrogen hypoxia as an alternate method of execution. In 2015, the Oklahoma State Legislature added this method as the first alternative after lethal injection. According to the statute, in the event lethal injection is held unconstitutional or is otherwise unavailable, the death sentence can be carried out by nitrogen hypoxia.

Both Doctor A and Professor A testified executions carried out by nitrogen hypoxia would be humane, and as nitrogen is the most abundant element in our atmosphere, the components for execution via nitrogen hypoxia would be easy and inexpensive to obtain. Nitrogen is also simple to administer. The scientific research regarding nitrogen hypoxia has shown this method of execution would be quick and seemingly painless. In addition to scientific research, Professor A explained that high altitude pilots who train to recognize the symptoms of nitrogen hypoxia in airplane

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[392] During the course of this investigation, Pfizer announced it would prohibit the use of its drugs in executions. Included on the list are midazolam, pancuronium bromide, rocuronium bromide, vercuronium bromide, and potassium chloride, all included in Chart D of Oklahoma's Execution Protocol.

depressurizations do not report any feelings of suffocation, choking, or gagging. Doctor A testified that a person in a nitrogen-induced hypoxic state would lose consciousness quickly, and the heart would cease to beat within a few minutes. At present, however, no State has implemented the death penalty through nitrogen hypoxia, although it is an approved method of execution in Oklahoma.

Since Oklahoma would be the first State to conduct executions by nitrogen hypoxia, it is the recommendation of the Multicounty Grand Jury that further research, including a best practices study, be conducted to determine how to carry out the sentence of death by this method. To that end, the Multicounty Grand Jury recommends the Department retain experts to advise the State regarding the best method for carrying out executions by nitrogen hypoxia with the goal of developing a nitrogen hypoxia protocol. However, while the Department begins its study into nitrogen hypoxia as a viable method of execution, the State of Oklahoma should still seek to carry out executions by lethal injection and improve upon its current protocol.

a. The Execution Protocol lacked controls to ensure the proper execution drugs were obtained and administered.

    i. The Execution Protocol was vague and poorly drafted.

With the exception of retaining qualified medical personnel, the execution process was a procedural failure, from drafting to implementation. The Protocol, drafted after the Lockett

* * *

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* * *

1) The execution protocol should be revised again to clearly define terms and duties.[180]

2) ODOC should consider adding potassium acetate to the protocol.[181]

3) The protocol should require verification of execution drugs at every step.[182] Passage of Senate Bill 884 will put ODOC in a position to register with the OBNDD and store execution related drugs on-site.[183] ODOC should require the drugs be ordered in writing and specifically forbid drug substitution.[184] Recognizing ODOC's confidentiality interests, the grand jury recommended "[i]f necessary, legislation should be sought exempting from disclosure the order form and related documents that could be used to identify the pharmacist, wholesaler, and/or physician taking part in the acquisition of execution drugs."[185]

4) Administrators should not serve in dual roles.[186] For example, the warden should not have both administrative contact with condemned prisoners in the thirty-five days leading up to the execution, as required by the protocol, and later take an active role in the execution.[187] ODOC should follow state laws requiring the documentation of purchases and inven-

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[180] *Id.* at 101.

[181] *Id.*

[182] *Id.*

[183] *Id.*

[184] *Id.*

[185] *Id.*

[186] *Id.* at 102.

[187] *Id.*

tories while safeguarding the privacy of those participating in execution of the death penalty.[188]

5) An independent third party, bound by confidentiality, should be responsible for conducting the post execution Quality Assurance Review.[189] Individuals involved in the execution process must be thoroughly trained on the execution protocol.[190] Individuals must be free to "question anything that appears out of the ordinary" and "anything they observe that does not seem right."[191] To increase accountability, ODOC should consider appointing an ombudsman to be onsite during executions and available to execution team members who need anonymity to feel comfortable raising concerns.[192]

IV. Recent Developments Regarding Alternative Methods of Execution

In the face of the declining administration of the death penalty, due in large part to de facto moratoriums resulting from problems with executions and lethal injection litigation, several states—including Oklahoma, Utah, and Tennessee—have passed legislation authorizing the use of other methods of execution, both old and new. In March 2015, Utah brought back the firing squad.[193] In September 2014, Tennessee passed legislation making use of the electric chair

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[188] *Id.*

[189] *Id.* at 104.

[190] *Id.* at 105.

[191] *Id.*

[192] *Id.*

[193] Brady McCombs, *Utah Brings Back the Firing Squad, so How Does It Work?*, ASSOCIATED PRESS, Mar. 24, 2015, https://www.yahoo.com/news/utahs-firing-squad-does-071036815.html.

compulsory if drugs used for the state's lethal injection protocol could not be obtained.[194] In Oklahoma, State Question 776—a voter referendum on the November 2016 ballot—passed overwhelmingly.[195] The measure allows for the state to designate any method of execution if the current method is found unconstitutional.[196]

These measures, however, may be largely symbolic. Whether electrocution, lethal gas, or death by firing squad offers states alternatives that are viable or sustainable for the practical administration of the death penalty is being debated across the country. States switched to lethal injection from the electric chair or the gas chamber in large part because it was significantly less expensive, but states also moved away from those methods because they were prone to gruesome spectacle.[197]

Since 2006, only seven out of 444 executions in the U.S. used methods other than lethal injection—six by electrocution and one by firing squad.[198] Between 2006

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[194] Ed Payne & Mariano Castillo, Tennessee to Use Electric Chair When Lethal Drugs Unavailable, CNN (Sept. 8, 2014), http://www.cnn.com/2014/05/22/us/tennessee-executions.

[195] 66.36% of voters supported State Question 776, while 33.64% voted against the measure. *See* Oklahoma Election Results, Oklahoma Board of Elections, https://www.ok.gov/elections/support/20161108_seb.pdf at p.29 (2016).

[196] *State Question that Protects the Death Penalty in Oklahoma Passes Overwhelmingly*, KFOR-TV (Nov.8, 2016), http://kfor.com/2016/11/08/state-question-that-protects-the-death-penalty-in-oklahoma-passes-overwhelmingly/.

[197] STUART BANNER, THE DEATH PENALTY: AN AMERICAN HISTORY (2002).

[198] *See Searchable Execution Database*, DEATH PENALTY INFO. CTR., http://www.deathpenaltyinfo.org/views-executions (under "Year" filter by "2006" through "2017") (last visited Mar. 8, 2017).

and 2013, Virginia electrocuted four individuals—all of whom chose the method over lethal injection—and South Carolina and Tennessee performed one execution each by electrocution.[199] Utah is the only state that has performed executions by firing squad. It has used the method three times in its history, most recently in 2010.[200]

In April 2015, Oklahoma's governor signed legislation authorizing execution by nitrogen gas as a backup method in the event that lethal injection drugs cannot be obtained or lethal injection is declared unconstitutional. Electrocution would be authorized if nitrogen gas were disallowed. The legislation also allows for execution by firing squad as a method of last resort if all other methods are barred.[201]

A member of the Oklahoma House of Representatives arranged for several researchers from East Central University to research the question of whether nitrogen hypoxia could serve as an "effective and

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[199] *See id.* (under "Year" filter by "2006" through "2013" and under "Method" filter by "Electrocution" and "Firing Squad") (last visited Mar. 8, 2017).

[200] *Descriptions of Execution Methods: Firing Squad*, DEATH PENALTY INFO. CTR., http://www.deathpenaltyinfo.org/descriptions-execution-methods?scid=8&did=479#firing (last visited Mar. 8, 2017).

[201] *See* Sandra Davidson & Michael Barajas, *Masking the Executioner and the Source of Execution Drugs*, 59 ST. LOUIS L.J. 45, 88 (2014) ("Oklahoma law says that firing squads will only be used if both lethal injection and electrocution are declared constitutionally infirm."); Austin Sarat, *The Trouble with Oklahoma's New Execution Technique*, POLITICO, Apr. 4, 2015, http://www.politico.com/magazine/story/2015/04/oklahoma-death-penalty-gas-chamber-117156; *Methods of Execution*, DEATH PENALTY INFO. CTR., http://www.deathpenaltyinfo.org/methods-execution?scid=8 &did=245#ok (last visited Mar. 6, 2017).

humane alternative" to the methods of execution currently authorized by Oklahoma law.[202] The researchers found that executions by nitrogen hypoxia would be humane, not require the assistance of medical professionals, be simple to administer, and not depend on the cooperation of the prisoner. They also found that nitrogen is readily available for purchase and availability would not be a problem. Based on these findings, the study recommended that "inhalation of nitrogen be offered as an alternative method of administering capital punishment in the state of Oklahoma."[203] However, ODOC has not promulgated a protocol for execution by nitrogen hypoxia.[204]

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[202] Michael P. Copeland et al. *Nitrogen Induced Hypoxia as a Form of Capital Punishment* at 2, https://localtvkfor.files.wordpress.com/2015/03/nitrogen-hypoxia.pdf [hereinafter *Nitrogen Induced Hypoxia*]. State Rep. Mike Christian, who introduced the bill, told *The Huffington Post* that death by nitrogen asphyxiation was "revolutionary" and that "it's cheaper than lethal injection, which he estimates costs around $500 per execution." *See* Jake Godin, *Nitrogen Backup Plan Is Another Okla. Execution First*, NEWSY, Apr. 18, 2015, at http://www.newsy.com/videos/nitrogen-backup-plan-is-another-okla-execution-first. The investigation into nitrogen gas is the first known instance of a state official in Oklahoma seeking scientific and medical research into a method of execution prior to selecting that method.

[203] However, the authors of the Report acknowledged the lack of scientific literature addressing the effectiveness of nitrogen for the purpose of carrying out executions. The available data was limited to experiments involving human subjects breathing nitrogen until they became unconscious, documented suicides involving nitrogen, and research into high altitude pilot training. *Nitrogen Induced Hypoxia*, *supra* note 202, at 4.

[204] A collateral recommendation of the multicounty grand jury convened to review the execution of Charles Warner was that ODOC should retain experts to advise the State on the newly-enacted alternative to lethal injection, nitrogen hypoxia. *Grand*

V. Conclusion and Recommendations

Recent problems with executions—in both Oklahoma and other death-penalty jurisdictions—have resulted in greater public scrutiny of execution protocols. Absent implementation of the following recommended measures or similar reforms, the efficacy, transparency, and humaneness of Oklahoma's execution procedures will likely remain in question, and, thus, arguably constitutionally infirm. The Commission's recommendations fall under two broad categories: first, the established execution protocol; and second, transparency and accountability in adherence to that protocol.

Recommendation 1:

Oklahoma should adopt the most humane and effective method of execution possible, which currently appears to be the one-drug (barbiturate) lethal injection protocol. Oklahoma should develop a process for continuous review of its execution protocol to ensure that the state is using the most humane and effective method possible.

Because variations on the three-drug protocol—in Oklahoma and elsewhere—have failed to provide a reliable, humane, and effective method of execution, and because one-drug protocols have not demonstrated comparable failings and appear to present fewer problems, Oklahoma policymakers should strongly consider replacing Oklahoma's present three-drug protocol with a one-drug protocol. Currently, the one-drug protocol appears to be the "best practice."

Jury Report, *supra* note 5 at 76. Further, "[i]t is the recommendation of the Multi-county Grand Jury that further research, including a best practices study, be conducted to determine how to carry out the sentence of death by this method." *Id.* at 77.

Oklahoma policymakers should continue to investigate humane and effective means for carrying out executions, particularly with respect to lethal injection.

Recommendation 2:

The Oklahoma Department of Corrections should revise its execution protocol to provide clear direction to department personnel involved in preparing for and carrying out executions. These revisions should, at minimum, provide comprehensible definitions for potentially ambiguous terms within the protocol and specify who within the department's chain of command has the authority and responsibility to perform critical steps in the execution process.

This recommendation echoes the first recommendation of the May 2016 report of the multicounty grand jury (*Grand Jury Report*), which was convened in October 2015 to study the Oklahoma Department of Corrections (ODOC) execution protocol. In its 105-page report, the grand jury ultimately recommended that the execution protocol be revised again. In identifying systemic problems with executions in Oklahoma, the *Grand Jury Report* noted that ODOC's execution protocol "in place for the [Charles] Warner execution and the scheduled [Richard] Glossip execution failed to define key terms and failed to clearly assign duties in some instances."[206] The Commission understands that ODOC is presently revising its execution protocol and hopes that it will include these suggestions regarding clear definitions and delineation of authority and responsibilities.

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[206] *Id.* at 101.

Recommendation 3:

With respect to lethal injection as an execution method, the Oklahoma Department of Corrections should amend its written execution protocol to require verification—at the point of acquisition and at all stages of the execution process—that the proper drug(s) for carrying out the execution have been obtained and will be used in any execution. The protocol should prohibit drug substitutions not specified within the protocol itself and should require that all drug purchases be in writing. If necessary to protect the confidentiality of suppliers, the Legislature should amend Oklahoma law to exempt the order form and related documents from disclosure.

This recommendation tracks recommendations in the *Grand Jury Report*. First, the report recommends the new protocol "require verification of execution drugs at every step."[206] Further, the recommendations advise that administrators of the ODOC execution protocol should be "fully focused" on performing their duties, "including any new safeguards put in place to verify that proper drugs are received."[207] The *Grand Jury Report* also recommends that ODOC "should follow laws regarding the documentation of purchases and inventories while still safeguarding the privacy of those participating in execution of the death penalty."[208] The Commission fully supports these recommendations by the grand jury.

To be sure, the Commission believes that pharmacists and those involved in executions may have impor-

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[206] *Id.* at 101.

[207] *Id.* at 103.

[208] *Id.*

tant confidentiality interests that should be protected. These interests, however, should be balanced against the public interest in governmental accountability, which demands ODOC policies and protocols to be appropriately performed and properly documented.

Recommendation 4:

All government personnel involved in carrying out an execution, as well as those individuals contracted with the government to provide services related thereto, should be thoroughly trained and evaluated on all relevant aspects of the Oklahoma Department of Corrections' execution protocol.

This recommendation tracks the *Grand Jury Report* recommendation related to training: "Individuals involved in the execution process must be thoroughly trained on the Execution Protocol."[209] As that investigation detailed, "*most* Department employees profoundly misunderstood the [ODOC Execution] Protocol."[210] This recommendation includes the appointment of an independent ombudsman, who would be onsite during executions.[211]

Recommendation 5:

The director of the Oklahoma Department of Corrections (ODOC) should deliver to the governor, at least 48 hours prior to any scheduled execution, a written, signed certification that the director has confirmed that all aspects of the execution protocol have been followed, including: ensuring that all personnel who will participate in the upcoming execution have been adequately trained and prepared; ensuring

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[209] *Id.* at 105.

[210] *Id.*

[211] *Id.* at 105-06.

that the necessary equipment and facilities that will be used are adequate and satisfy the standards promulgated within ODOC's execution protocol; and ensuring that any drugs that will be used have been obtained pursuant to and are consistent with ODOC's execution protocol.

In addition to the post-execution review recommended in the *Grand Jury Report*, this Commission believes a *pre*-execution review—before an irreversible error can occur—should be conducted. During that review, the ODOC director should ensure and certify in writing to the governor that all individuals involved in the ODOC execution protocol are adequately trained and prepared. The *Grand Jury Report* emphasizes such training should be "something more than repeated dry-runs and walk-throughs. Each person involved in the IV Team and Special Operations Team should know the Protocol, the drugs to be used, and the order in which they are to be administered. They should also know that no other chemical may be substituted unless specifically authorized in the policy and protocol (and with proper advance notice to the offender)."[212] We agree and believe similar principles should guide a review *before* an execution is to take place.

Recommendation 6:

In the event that lethal injection will be used to carry out the execution of a condemned inmate, the inmate should be provided written notice as to which drug(s) will be used at least 20 days prior to the scheduled execution.

The Commission believes that a condemned inmate is entitled to know which drugs will be used in their

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[212] *Id.* at 105.

execution. While Oklahoma statute prohibits disclosure of information identifying the source of execution drugs, information should still be provided to the condemned inmate regarding the name, safety, and efficacy of the drugs—e.g., explaining that the drugs are approved by the U.S. Food and Drug Administration or, if compounded, that the drugs have been tested and the results provided to the prisoner—without violating statute, either under seal or through document redaction.

Recommendation 7:

Following any execution, an independent third party should conduct a thorough quality assurance review to determine whether state laws, regulations, and protocols were properly followed before, during, and immediately after the execution. It is important that the independent third party be required to maintain the confidentiality of any sources for information. The independent third party's findings should be communicated in a timely fashion to the Oklahoma Department of Corrections, the Oklahoma Legislature, and the governor's office, while also being made available to the public.

This recommendation is based on the fifth recommendation of the *Grand Jury Report*, which calls for an independent third party to perform a review to ensure that ODOC's execution protocol has been properly performed.[213] The independent third party should ensure that the review is robust and not merely cosmetic, and that adherence is safeguarded by independent oversight.

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[213] *Id.* at 104-105.

UNITED STATES DISTRICT COURT FOR THE
WESTERN DISTRICT OF MISSOURI
WESTERN DIVISION

Case No. 4:14-CV-08000-BP

RUSSELL BUCKLEW,
Plaintiff,

v.

GEORGE LOMBARDI, *et al.*
Defendants.

DEFENDANT LOMBARDI'S SUPPLEMENTAL RESPONSE TO PLAINTIFF'S FIRST SET OF INTERROGATORIES

Defendant George A. Lombardi, by and through counsel, submits the following supplemental responses and objections to Plaintiff's first set of interrogatories:

INTERROGATORIES

* * *

INTERROGATORY NO. 6:

Describe in detail all documents, records, or communications related to the viability or feasibility of lethal gas as an execution method in Missouri.

ANSWER TO INTERROGATORY NO. 6: Subject to, and without waiving the objections included in my original answer, I supplement my response as follows:

I served as Department Director for approximately 8 years between January 2009 and January 2017. In

my position as Director of the Department of Corrections, I did not possess documents or records "related to the viability or feasibility of lethal gas as an execution method in Missouri." I did have communications "related to the viability or feasibility of lethal gas as an execution method in Missouri" but the communications were held with legal counsel and are protected by attorney/client privilege. I do not recall the specific dates or times of these discussions, and can recall only two discussions.

I served as the Director for the Division of Adult Institutions for approximately 19 years from 1986 until 2005. In my position as Division Director, I possessed records "related to the viability or feasibility of lethal gas as an execution method in Missouri." However, these records pertained to an evaluation conducted in 1987-1988 to determine whether DOC's only gas chamber, located at the Missouri State Penitentiary, was functional. Ultimately, DOC abandoned lethal gas and adopted lethal injection after the General Assembly authorized lethal injection as a method of execution in Missouri. A copy of the non-privileged records pertaining to this research into lethal gas are attached. The only document being withheld is a memorandum dated September 1, 1988, from a Department of Corrections Deputy General Counsel to Bill Armontrout, Warden of the Missouri State Penitentiary, on the basis of attorney/client privilege.

Due to the passage of time, I do not recall any specific communications "related to the viability or feasibility of lethal gas as an execution method in Missouri" that occurred during my tenure as Division Director beyond what is memorialized on the attached records.

INTERROGATORY NO. 20:

Describe in detail any research or review of any method of execution by any DOC employee or agent or any communications between any DOC employee or agent and any other person concerning a method of execution, including execution by lethal injection, lethal gas, firing squad or electrocution, and the feasibility of any of those methods.

ANSWER TO INTERROGATORY NO. 20: Subject to, and without waiving the objections included in my original answer, I supplement my response as follows:

In my position as Department Director, I did not conduct research concerning the feasibility of lethal gas as a method of execution in Missouri and did not direct anyone to do any research concerning the feasibility of lethal gas as a method of execution in Missouri. As discussed in interrogatory 6, I can recall only two discussions regarding lethal gas. Both communications were with legal counsel and were privileged attorney/client communications. I do not recall the specific dates and times of those communications.

In my position as Division Director, I conducted research concerning the feasibility of lethal gas as a method of execution during the late 1980s. Smoke was used to test the gas chamber. The test revealed that any gas used would have leaked out of the chamber. Documents detailing the research and review of the gas chamber were produced in response to Interrogatory Request 6. Due to the passage of time, I do not recall any specific communications that occurred during my tenure as Division Director beyond what is memorialized on the records provided.

Respectfully submitted,

JOSHUA D. HAWLEY
Attorney General

/s/ Michael Spillane
MICHAEL SPILLANE
Assistant Attorney General
Missouri Bar # 40704

David Hansen
Assistant Attorney General
Missouri Bar # 40990

Caroline Coulter
Assistant Attorney General
Missouri Bar # 60040

P.O. Box 899
Jefferson City, MO 65102
(573) 751-1307
(573) 751-2096 Fax
mike.spillane@ago.mo.gov
ATTORNEYS FOR DEFENDANTS

715

RESPONSE TO 6 AND 20

BATES NOS. 9902184-9902193

[LOGO]

JOHN ASHCROFT
GOVERNOR
DICK D. MOORE
DIRECTOR
DEPARTMENT OF CORRECTIONS
AND HUMAN SERVICES

GEORGE A. LOMBARDI
DIRECTOR
DIVISION OF ADULT INSTITUTIONS

BILL M. ARMONTROUT
WARDEN
MISSOURI STATE PENITENTIARY

[Handwritten] jw. Place in Gas Chamber file MSS

RECEIVED AUG 11 1987
[illegible]
EXECUTIVE ASSISTANT

STATE OF MISSOURI
DEPARTMENT OF CORRECTIONS
AND HUMAN RESOURCES

MISSOURI STATE PENITENTIARY

P.O. BOX 597
JEFFERSON CITY, MISSOURI 65102-0597
Phone: 314-751-3224

August 10, 1987

TO: JIM SCHULTE, BUSINESS MANAGER

/s/ Bill M. Armontrout

FROM: BILL M. ARMONTROUT, WARDEN

SUBJECT: EQUIPMENT FOR GAS CHAMBER

I want a priority placed on ordering the following equipment for use in the gas chamber. (The safety of the staff depends on the exact gas mask and canisters being ordered and not substituted.)

1. 4 each – full length rubber aprons
2. 4 pair – rubber boots
3. 4 each – sets of long rubber gloves
4. 8 each – sound powered telephone headsets and chargers
5. 6 each – gas masks (Mine Safety Appliance Catalog – ED-15762 for protection against hydrocyanic acid gas [sic]
6. 12 each – replacement canisters for gas mask, #ED-3055 (for use with hydrocyanic acid mask)
7. 12 each – replacement canisters for gas mask, #3051 (for use with ammonia)

Attached is the sound powered communication system to be ordered.

BA/pb

Attachment

cc: Larry Henson

Mark Schreiber

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719

[RECEIVED JUL 27 1987 ENGINEERING OFFICE
Missouri State Penitentiary]

PAGECOM

July 20, 1987

Mr. E Larkins
Chf Engr
State of Missouri
Pw Engrg Dept
631 State St Box 236
Jefferson City, MO 65101

Dear Mr. Larkins:

PAGE-COM continues to offer the finest communication equipment at the lowest possible price. With budgetary considerations limiting your equipment purchases, we urge you to investigate our entire line of radio equipment. In many cases your communication dollar will buy significantly more PAGE-COM equipment without sacrificing performance or reliability.

Enclosed is our catalog for your reference. Virtually all of our prices have remained unchanged. New products have been added throughout the catalog.

The Standard HX400 series remains our number one selling portable to city, state and federal agencies. Offering 25 programmable channels with scan and priority channel selection, this unit's reliability has proven to be one of the best in the industry.

PAGE-COM will provide you with service that is second to none. Initial delivery on most products is 7 days or less. PAGE-COM radio equipment is designed to give you years of trouble-free use. However, in the unlikely event that service is required, we provide 48 hour turnaround on all repairs.

If your radio budget is limited, you may want to consider our new rental program. You can get the equipment that you need now without a large capital outlay. Should you decide to purchase the equipment which you are renting, a substantial portion of your rental payment is applied toward the purchase price. All required maintenance is included in the rental program.

You are invited to take advantage of our free two-week trial offer on any of our communication equipment. For more information, or to place your order, contact either John Umphfres, John Henry, Pat Collins or myself on our TOLL-FREE number, 1-800-527-1670.

We appreciate this opportunity to present you with our product line and look forward to hearing from you.

Sincerely,

/s/ Greg Mann
Greg Mann
Vice President

Page-Com Inc
10935 Alder Circle
Dallas, Texas 75238
214/669-8739
800/527-1670

[LOGO]

JOHN ASHCROFT
GOVERNOR

DICK D. MOORE
DIRECTOR

GEORGE A. LOMBADRI
DIRECTOR
DIVISION OF ADULT INSTITUTIONS

STATE OF MISSOURI
DEPARTMENT OF CORRECTIONS
AND HUMAN RESOURCES
DIVISION OF ADULT INSTITUTIONS

P.O. BOX 236
JEFFERSON CITY, MISSOURI 65102
Phone: 314-751-2389

September 8, 1987

TO: Bill M. Armontrout, Warden/MSP

/s/ George A. Lombardi
FROM: George A. Lombardi, Director of Adult Institutions

SUBJECT: Inspection - Gas Chamber

As you and I have discussed on several recent occasions, the probability of using the gas chamber in the future becomes greater each day. If you haven't done so already, I would like for you to have the gas chamber safety inspected at the earliest possible opportunity. Please contact Eaton Metal Products Company in Denver, Colorado, or another professional firm who specializes in inspections of this type. Let me know if you need any assistance with this project.

Please advise as soon as the inspection is completed and forward a copy of the inspection results.

GAL/MSS/jc

cc: Gail Hughes
Dale Riley
File

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[LOGO]

JOHN ASHCROFT
GOVERNOR

DICK D. MOORE
DIRECTOR

GEORGE A. LOMBADRI
DIRECTOR
DIVISION OF ADULT INSTITUTIONS

STATE OF MISSOURI
DEPARTMENT OF CORRECTIONS
AND HUMAN RESOURCES
DIVISION OF ADULT INSTITUTIONS

P.O. BOX 236
JEFFERSON CITY, MISSOURI 65102
Phone: 314-751-2389

November 23, 1987

CONFIDENTIAL

TO: Bill M. Armontrout, Warden/MSP

/s/ George A. Lombardi
FROM: George A. Lombardi, Director of Adult Institutions

SUBJECT: Gas Chamber

Regarding the company that recently made an assessment of the gas chamber, could you please advise me of their findings. What recommendations were made in the area of safety. It is my understanding that they were to provide you with three alternative plans consisting of an immediate fix-it-now proposal, a plan for complete renovation, and a proposal directed toward the use of the injection

method of execution. Obviously, since based on projections we may be required to use the existing chamber in the next few months, it is imperative that immediate attention be given to addressing those areas of concern which could affect the safety of staff and witnesses who will be required to be just outside the chamber during an execution. Have the door seals been replaced, and has a new exhaust vent fan been added? Is there time to replace the main hatch door to the chamber?

Please provide me with some answers so appropriate steps can be taken and so I any [sic] relate any necessary information to appropriate parties who may inquire.

GAL/MSS/jc

cc: File

[Handwritten] Bill I NEED THIS ASAP M

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[LOGO]

JOHN ASHCROFT
GOVERNOR

DICK D. MOORE
DIRECTOR

GEORGE A. LOMBADRI
DIRECTOR
DIVISION OF ADULT INSTITUTIONS

STATE OF MISSOURI
DEPARTMENT OF CORRECTIONS
AND HUMAN RESOURCES
DIVISION OF ADULT INSTITUTIONS

P.O. BOX 236
JEFFERSON CITY, MISSOURI 65102
Phone: 314-751-2389

January 7, 1988

TO: Don Fishback, Fiscal Management

/s/ George A. Lombardi
FROM: George A. Lombardi, Director of Adult Institutions

SUBJECT: Gas Chamber Renovation

As you are no doubt aware, serious consideration is being given regarding renovation of the existing gas chamber at MSP. Most probably an execution will take place sometime during 1988. There are some serious concerns regarding the safety and security of the building containing the chamber and of the chamber itself. Every consideration must be given to insure a safe environment for key staff and witnesses at the execution site. In order to accomplish this, it is

essential that immediate preparations be undertaken to correct the most serious deficiencies.

To our knowledge there is only one existing company in the United States that does technical renovation of gas chambers. The company is American Engineering Company, Inc., of Boston, Massachusetts. Last Fall, two engineers with the company conducted an onsite inspection of the existing gas chamber. Numerous recommendations were made. On October 14, 1987, the company submitted a renovation proposal in the amount of $183,000. Since there is some possibility that the lethal injection system bill might be passed this season, it is felt that total renovation would not be feasible at this time. There are, however, several priority items that should be installed immediately. They are:

Part 5.004 - Install vacuum system. The system will insure positive pressure outside chamber,

Item 7.003 - $5,525.00

Part 7.007 - Install emergency safety system consisting of five gas detectors; one in chamber, one in ceiling, three in personnel and witness areas.

Item 9.007 - $26,098.00

As indicated previously, we know of no other company who can do the specialized work required. Warden Bill Armontrout called around the country attempting to locate other sources, and he could not.

Please expedite this request as soon as possible. Should you need additional information, contact either Dale Riley or Mark Schreiber.

GAL/MSS/jc

cc: Dale Riley
Mark Schreiber
File

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[LOGO]

JOHN ASHCROFT
GOVERNOR

DICK D. MOORE
DIRECTOR

GEORGE A. LOMBADRI
DIRECTOR
DIVISION OF ADULT INSTITUTIONS

STATE OF MISSOURI
DEPARTMENT OF CORRECTIONS
AND HUMAN RESOURCES
DIVISION OF ADULT INSTITUTIONS

P.O. BOX 236
JEFFERSON CITY, MISSOURI 65102
Phone: 314-751-2389

January 15, 1988

TO: Bill Armontrout, Warden/MSP

/s/ Mark S. Schreiber
FROM: Mark S. Schreiber, Executive Assistant

SUBJECT: Gas Chamber Chronological

Several days ago we discussed the proposed renovation of the MSP Gas Chamber. A memo was sent to Don Gerling regarding the requested improvements along with price quotes from American Engineering Inc., as submitted in their report of October 14, 1987. I later informed you that additional information was needed so the request could be sent through OA Purchasing. As of this date, I have been informed by Mr. Don Fishback that the following is needed as soon as possible.

1. A chronological outlining attempts to locate other companies who might do the renovation if any exist.
2. Information that American Engineering Inc. is a sole source for the renovation.
3. Do the price quotes and figures quoted in the 10/14/87 report reflect the actual cost for the items requested.

Please respond as soon as possible so your request can be given priority. Should you need additional, please advise.

MSS:jc

cc: George Lombardi
Dale Riley
Don Fishback
File

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[LOGO]

JOHN ASHCROFT
GOVERNOR

DICK D. MOORE
DIRECTOR
DEPARTMENT OF CORRECTIONS
AND HUMAN RESOURCES

GEORGE A. LOMBADRI
DIRECTOR
DIVISION OF ADULT INSTITUTIONS

BILL M. ARMONTROUT
WARDEN
MISSOURI STATE PENITENTIARY

[Handwritten] jw. file in execution file MSS

STATE OF MISSOURI
DEPARTMENT OF CORRECTIONS
AND HUMAN RESOURCES
MISSOURI STATE PENITENTIARY

P.O. BOX 597
JEFFERSON CITY, MISSOURI 65102-0597
Phone: 314-751-3224

TO: Mr. Bill Armontrout, Warden

Date: September 1, 1988

FROM: /s/ Larry F. Henson,
Larry F. Henson, Associate Warden/
Program Services

SUBJECT: GAS CHAMBER RENOVATION AND CONVERSION

On Thursday, September 1, 1988 I met with Dale Riley, Assistant Director, and Mark Schrieber, Administrative Assistant, to discuss the proposed renovation of the Missouri State Penitentiary gas chamber and conversion to use an execution room for the newly approved lethal injection form of execution. It was the feeling of Mr. Riley that we should proceed immediately with the project of making the changes in the current gas chamber which shall be referred to in the future as the execution room. The following are the items that need to be done:

The lethal injection machine should be bought and brought on sight as soon as possible.

The gurney that will sit inside the chamber must be very sturdy and should be in a fixed position to provide stability and should be tall enough there the top of the bed should be at the bottom of the window to provide the witnesses better access in viewing the area.

Mark Schrieber is working with Mr. Ambler to procure a gown type with parachute cloth strength that will provide three (3) strap tie across the upper chest, the lap area, and the upper part of the legs. He is also procuring special straps for the wrists area and the ankle area. They will look more like hospital straps and will look better in use.

The actual remodeling inside the Chamber should include drop ceiling, no lower than 9', paneling in the state witness room and inmate witness room, stick down tile in both of these areas, a new switch box and wiring to carry the electrical load, lighting with a dimmer switch, baseboard heat, the windows will be blocked in and paneling will go over them with two areas left in the state witness room and inmate

witness room to hook air conditioning units in the windows if needed.

It was also decided that we should proceed with removing the two chairs in the gas chamber and store them in case they were needed in the future. This was accomplished as of 12:00 noon this date with Mr. Schrieber present taking pictures to record this event. The removal of the chamber door and the dismantling of the drop system will proceed in the very near future.

All areas mentioned in this letter need to be completed by September 15, 1988 if possible and also a complete update of the execution plan needs to be done once the machine is on hand and the complete operation is understood. Mr. Riley also pointed out that we need to include staff from Potosi in this certification procedure on using the lethal injection machine.

This letter is written to provide everyone with information about the points discussed so we will know that we are proceeding on so that if other concerns come up they can be added.

Elmer Larkins, Chief Engineer, will provide weekly progress reports to Mr. Armontrout, Mr. Henson, and Mr. Rutledge each Friday.

LFW/dlw

cc: Mr. Riley
Mr. Schrieber
Mr. Rutledge
Mr. Larkins
File

** AN EQUAL OPPORTUNITY EMPLOYER **

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Report on Study of Methods of Execution & Recommendations for Procedures

Submitted by: Louisiana Department of Public Safety & Corrections

February 18, 2015

House Resolution 142 of the 2014 Regular Legislative Session was enrolled and signed by the Speaker of the House on June 5, 2014 to study and make recommendations relative to the different forms of execution and the methods of execution to determine the best practices for administering the death penalty in the most humane manner.

The Secretary of the Louisiana Department of Public Safety and Corrections, James Le Blanc, chaired this work and held an organizational meeting on July 22, 2014 to organize a study committee to conduct this work. At that time, he assigned the following individuals to serve on the committee:

Burl Cain, Warden, Louisiana State Penitentiary

William Kline, Executive Counsel, DPS&C Legal Department

Seth Smith, Chief of Operations, DPS&C Office of Adult Services

Stephanie LaMartinere, Assistant Warden, Louisiana State Penitentiary

Bruce Dodd, Deputy Warden, Louisiana State Penitentiary

James Hilburn, Attorney, Shows Cali & Walsh, LLP

Jeff Cody, Attorney, Shows Cali & Walsh, LLP

Angela Whittaker, Executive Mgmt Officer, DPS&C Secretary's Office

The committee met on the following dates:

August 11, 2014: Planning meeting to develop resource and research needs of the group.

September 2, 2014: Report and discussion on research findings.

October 31, 2014: Report and discussion regarding identifying experts and discussion on additional research compiled.

December 4, 2014: Report and discussion regarding research and protocol options and drafting the required written report.

January 8, 2015: Review of research and draft report and consensus on recommendations for protocol options.

January 22, 2015: Review and approval [sic] final report.

* * *

Recommended Protocols:

A. Lethal Injection

We are recommending for consideration a lethal injection protocol that calls for the use of a one drug protocol utilizing 5 gm of Pentobarbital injected intravenously (IVP). This protocol has been used in numerous states, including Texas, as a one drug method. The availability of this drug to Departments of Corrections is however severely hampered and there could be issues obtaining a supply of Pentobarbital or any other drug to be used for lethal injection. Drug suppliers have refused to sell drugs to the prison systems for use in executions and other entities have refused to sell to Louisiana DOC. It is this committees [sic] understanding that suppliers have threatened providers with no

longer supplying the drugs to their businesses if they in turn sell to correctional agencies for the purpose of lethal injection. As a result, suppliers fear the backlash of bad publicity to their businesses if involved in providing the drugs to correctional agencies.

This committee also recommends reconsideration of a bill that combines the language from the original and amended versions of House Bill 328 of the 2014 Legislative Session authored by Representative Lopinto. The attached draft legislation (Appendix A) amending LA R.S. 15:569 outlines what is needed to allow for the recommendations within this report and will provide for the confidentiality of information related to the execution of a death sentence. The amended version of the prior bill stated that "The name, address, qualifications, and other identifying information of any person or entity that manufactures, compounds, prescribed [sic], dispenses, supplies or administers the drugs or supplies utilized in an execution shall be confidential, shall not be subject to disclosure, and shall not be admissible as evidence or discoverable in any action of an kind in any court or before any tribunal, board, agency, or person. The same confidentiality and protection shall also apply to any person who participates in an execution or performs any ancillary function related to an execution and shall include information contained in any department records, including electronic records, that would identify any such person." Such legislation would provide some security to those tasked to and involved in carrying out the state's order to execute an individual as punishment for a qualifying crime.

It should also be noted that the U.S. Supreme Court will consider in April whether a multi-drug protocol used in recent lethal injections in other states violates

the Constitution with regard to cruel and unusual punishment.

B. Induced Hypoxia via Nitrogen

It is the recommendation of this study group that hypoxia induced by the inhalation of nitrogen be considered for adoption as an alternative method of administering capital punishment in the State of Louisiana.

It is important to note that the recommendation would induce hypoxia, which is a deficiency of oxygen reaching the tissues of the body. In nitrogen induced hypoxia, there is no buildup of carbon dioxide in the bloodstream so the subject passes out when the blood oxygen falls too low. The research reviewed suggests that this method would be the most humane method and would not result in discomfort or cruel and unusual punishment to the subject.

Though the exact protocol and nitrogen delivery device have not been finalized, it has been determined that a Gas Chamber would not be used. Options for the nitrogen delivery device include a mask or a device similar to an oxygen tent house (small clear oxygen tent covering only the head and neck area). Research as to the best method of delivery is ongoing.

Oklahoma has recently filed similar legislation to allow for induced hypoxia (refer to Appendix B). Also, you will find attached the Executive Summary (Appendix C) of the research conducted in Oklahoma that supports this method as a humane method which does not require the assistance of licensed medical professionals. We have also attached the documents (Appendix D) which make up the research used in

Oklahoma by this committee in developing this recommendation. This method is believed to be simple to administer and nitrogen is readily available.

Conclusion:

This committee submits this study response to House Resolution 142 of the 2014 Regular Legislative Session to make recommendations to consider relative to the different forms of execution and the methods of execution upon agreement that the above considerations represent the best practices for administering the death penalty in the most humane manner. There are two sides to the debate on the death penalty. Proponents believe that the death penalty reduces crime and provides safe communities, while also honoring the victim and those left behind who grieve a loss. Opponents believe that the cost of capital punishment doesn't justify the outcome, that it does not deter crime, and that there are social injustices that are not addressed that make justice system inequitable. As a whole, this committee takes no stand on either side of this debate, but submits this response based on the request for this study and the research and materials available to the group.

We close reminding readers that many are directly impacted by the process of capital punishment: the victim, the victim's friends and family; law enforcement; the judiciary, the prosecutor, the defense attorney, the jurors, the public, the offender, the offender's family, and the staff tasked to carry out the protocol, to name just a few. We understand that the decision to act on these recommendations for consideration is an enormous task before you that cannot be taken lightly. We trust that we have provided the information you needed to consider Louisiana's options.

* * *

Nitrogen Induced Hypoxia as a Form of Capital Punishment

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Executive Summary

At the request of Oklahoma State Representative Mike Christian, the authors of this study researched the question of whether hypoxia induced by nitrogen gas inhalation could serve as a viable alternative to the current methods of capital punishment authorized under Oklahoma law. As per the above, this study does not express an opinion on the wider question of whether Oklahoma should continue to administer capital punishment in general. The scope of this study is limited to the assumption that capital punishment will continue to be administered in Oklahoma, and given that assumption, analyzing whether hypoxia via nitrogen gas inhalation would be an effective and humane alternative to the current methods of capital punishment practiced in Oklahoma law.

This study was conducted by reviewing the scientific, technical, and safety literature related to nitrogen inhalation.

The study found that:

1. An execution protocol that induced hypoxia via nitrogen inhalation would be a humane method to carry out a death sentence.

2. Death sentence protocols carried out using nitrogen inhalation would not require the assistance of licensed medical professionals.

3. Death sentences carried out by nitrogen inhalation would be simple to administer.

4. Nitrogen is readily available for purchase and sourcing would not pose a difficulty.

5. Death sentences carried out by nitrogen inhalation would not depend upon the cooperation of the offender being executed.

Accordingly, it is the recommendation of this study that hypoxia induced by the inhalation of nitrogen be offered as an alternative method of administering capital punishment in the State of Oklahoma.

The views expressed in this study are solely those of its authors and do not necessarily reflect those of the university at which we are affiliated.

Introduction

Nitrogen is an inert gas that at room temperature is colorless, odorless, and tasteless. It is the most common gas in the earth's atmosphere, comprising 78.09% of the air that humans breathe on a regular basis.

When combined with the normal 20.95% oxygen found in the atmosphere, nitrogen is completely safe for humans to inhale. However, an environment overly enriched in nitrogen will lack the appropriate level of oxygen necessary for human survival and will thus lead to hypoxia and rapid death. (U.S. Chemical Safety and Hazard Investigation Board, 2003, p.1).

Nitrogen hypoxia has been suggested as a means of administering capital punishment in the popular media on previous occasions. For example, in1995 the National Review featured an article by Stuart Creque titled *Killing With Kindness: Capital Punishment by Nitrogen Asphyxiation (1995)*. Creque's article was written in response to a 9th Circuit U.S. District Court

decision that California's gas chamber was an unconstitutionally cruel and unusual punishment. The article suggested nitrogen could provide a simple and painless alternative to the gas chamber that would require no elaborate medical procedures to administer.

The idea of administering capital punishment via nitrogen hypoxia resurfaced more recently in a Tom McNichol Slate magazine article titled *Death by Nitrogen (2014)*. The article was inspired by the stay of execution issued by the U.S. Supreme Court for a Missouri man facing execution via lethal injection. Again, the author suggested nitrogen induced hypoxia as a painless alternative to traditional methods of execution, adding that it offered the additional benefits of requiring no medical training to administer and lacked any of the supply issues that exist with lethal injection.

The capital punishment protocols cited that utilize nitrogen to administer a death sentence do not actually rely on the nitrogen itself to bring about death. Nitrogen simply displaces the oxygen normally found in air and it is the resulting lack of oxygen which causes death. Without oxygen present, inhalation of only 1-2 breaths of pure nitrogen will cause a sudden loss of consciousness and, if no oxygen is provided, eventually death. (European Industrial Gases Association, 2009, p. 3).

Since nitrogen has not previously been used for capital punishment there is a lack scientific literature that specifically addresses its performance for that purpose. However, there have been medical experiments which involved human subjects breathing pure nitrogen until they became unconscious. Beyond those experiments, most of the data related to nitrogen

induced hypoxia comes from documented suicides in humans and research in high altitude pilot training.

> *Author's Note: in some cases the lay press will inadvertently refer to hypoxia as asphyxiation. This is technically inaccurate in this context, as asphyxia is the inability to breathe in oxygen and the inability to exhale carbon dioxide. Hypoxia is the pathology related to the inability to intake oxygen even though one may still be able to exhale carbon dioxide. As will be seen later, the ability to exhale carbon dioxide is critical to the proposed method of execution, as it prevents the acidosis normally associated with asphyxiation.*

Medical Literature

The adult brain uses about 15 per cent of the heart's output of oxygenated blood (Graham, 1977, p.170). Hypoxia is the condition of having a lower-than-normal amount of oxygen in the blood. Anoxia is an extreme form of hypoxia in which there is a complete absence of oxygen in the blood (Brierley, 1977 p.181). If the supply of oxygen in the blood is reduced below a critical level it will result in a rapid loss of consciousness and eventually irreversible brain damage will occur (Graham, 1977, p.170).

A complete immediate global loss of oxygen to the brain, (a scenario in which no residual oxygen in the lungs or blood is delivered to the brain), will result in a loss of consciousness in eight to ten seconds, and a loss of any electrical output by the brain will occur a few seconds later. The heart may continue to beat for a few minutes even after the brain no longer functions (Brierley, 1977 p.182).

Ernsting (1961) performed a study on human volunteers that hyperventilated on pure nitrogen gas. The

subjects performed the test multiple times, varying the length of time they inhaled the nitrogen. When the subjects inhaled nitrogen for eight-to-ten seconds they reported a dimming of vision. When the period was expanded to fifteen-to-sixteen seconds, the subjects reported some clouding of consciousness and impairment of vision. When the tests were expanded to seventeen-to-twenty seconds, the subjects lost consciousness. There was no reported physical discomfmt associated with inhaling the pure nitrogen. (p. 295)

Unlike asphyxiation, hypoxia via the inhalation of nitrogen allows the body to expel the carbon dioxide buildup that is normally associated with the respiratory cycle. This helps prevent a condition known as hypercapnia - an accumulation of carbon dioxide in the blood. The result of this buildup of carbon dioxide is respiratory acidosis - a shifting of the ph levels in the blood to become more acidic. This is the pathology many people associate with suffocating. Some of the symptoms of respiratory acidosis are expected to be present in cases of asphyxiation but not expected to be present under pure hypoxia are anxiety and headaches, (Merrick Manuel, 2013).

Suicide Data

Perhaps one of the greatest testaments to both the humanity of nitrogen induced hypoxia as well as the ease of administration is its rapidly gaining popularity as a self-selected means of suicide. Suicide by hypoxia using an inert gas is the most widely promoted method of human euthanasia by right-to-die advocates (Howard, M.O. et. al., 2011, P. 61).

The trend toward using an "exit bag" filled with an inert gas such as nitrogen or helium likely started with a publication of *Final Exit: The Practicalities of*

Self Deliverance and Assisted Suicide for the Dying. The authors of the publication sought to identify methods of death that were swift, simple, painless, failure-proof, inexpensive, non-disfiguring and did not require a physician's assistance or prescription (Howard, M.O. et. al., 2011. p 61).

This method of suicide is indeed simple. It involves a clear plastic bag fitted over the head, two tanks filling the bag with helium via vinyl tubing, and an elastic band at the bottom of the bag to prevent the bag from slipping off the head. The parts needed to create the bag are inexpensive and available locally without prescription (Howard, M.O. et. al., 2011. p 61-62).

Reports of deaths observed via this method suggest that it is painless. Jim Chastain, Ph.D. President of the Final Exit Network of Florida described the process this way:

> In the several events I have observed the person breathes the odorless, tasteless helium deeply about three or four times and then is unconscious, no gagging or gasping. Death follows in 4-5 minutes. A peaceful process.

Derek Humphrey, current chair of the Final Exit advisory board is quoted as saying:

> In the approximate 300 cases which have been reported to me there has never been mention of choking or gagging. When I witnessed the helium death of a friend of mine it could not have been more peaceful (Final Exit, 2010).

However, it should be noted that deviations from the above protocols have not always been as successful. When masks were placed over the face (instead of using bags of helium over the head) it has been

reported some problems have occurred. This is typically a result of the mask not sealing tightly to the face, resulting in a small amount of oxygen being inhaled by the individual. This extends the time to become unconscious and extends the time to death. This may result in purposeless movements by the decedent (Ogden et al, 2010. p 174-179).

Research on High Altitude Pilot Training

A great deal of research on the effects of hypoxia on human beings comes from aerospace medicine. Pilots that fly at high altitudes are subject to becoming hypoxic if their cabins lose air pressure. Altitude hypoxia has similar effects as the hypoxia one gets from breathing inert gases although it is caused by the inability of the lungs to absorb the oxygen in the air rather than a lack of oxygen in the air.

The Federal Aviation Administration (2003, p. 11) states:

> Hypoxia is a lack of sufficient oxygen in the body cells or tissues caused by an inadequate supply of oxygen, inadequate transportation of oxygen, or inability of the body tissues to use oxygen. A common misconception among many pilots who are inexperienced in high-altitude flight operations and who have not be exposed to physiological training is that it is possible to recognize the symptoms of hypoxia and to take corrective actions before becoming seriously impaired. While this concept may be appealing in theory, it is both misleading and dangerous for an untrained crew member. Symptoms of hypoxia vary from pilot to pilot, but one of the earliest effects of hypoxia is impairment of judgment.

Other symptoms can include one or more of the following:

(1) Behavioral Changes (e.g. a sense of euphoria).

(2) Poor coordination.

(3) Discoloration in the fingernails (cyanosis).

(4) Sweating.

(5) Increased breathing rate, headache, sleepiness, or fatigue

(6) Loss or deterioration of vision

(7) Light-headedness or dizzy sensations and listlessness.

(8) Tingling or warm sensations.

Indeed, hypoxia has caused several airline accidents which are often fatal. The onset of hypoxia is typically so subtle that it is unnoticeable to the subject. The effects of hypoxia are often difficult to recognize. (Federal Aviation Administration. 2014, Ch. 8-1-2 (A) 5)

Attempts to train pilots to notice hypoxia are conducted using a hyperbaric chamber to simulate high altitudes. Often a trainee will be asked to remove his or her mask and perform simple tasks. At low levels of hypoxia, trainees typically feel little more than euphoria and a sense of confidence. At higher levels of hypoxia, trainees will quickly become unconscious. Time of useful consciousness at altitudes above 43,000 is 5 seconds (Federal Aviation Administration, 2003, p. 13).

Findings

Based on the review of the literature related to hypoxia induced by inert gases, this study makes the following findings:

1. An execution protocol that induced hypoxia via nitrogen inhalation would be a humane method to carry out a death sentence.

2. Death sentence protocols carried out using nitrogen inhalation would not require the assistance of licensed medical professionals.

3. Death sentences carried out by nitrogen inhalation would be simple to administer.

4. Nitrogen is readily available for purchase and sourcing would not pose a difficulty.

5. Death sentences carried out by nitrogen inhalation would not depend upon the cooperation of the offender being executed.

6. Use of nitrogen as a method of execution can assure a quick and painless death of the offender

Finding 1. An execution protocol that induced hypoxia via nitrogen inhalation would be a humane method to carry out a death sentence.

Rationale:

As an inert gas, nitrogen is odorless, colorless, tasteless and undetectable to human beings. It is 78% of the air we breathe on a daily basis, and thus there is little chance that any subject would have an unusual or allergic reaction to the gas itself.

Because the subject is able to expel carbon dioxide, the anxiety normally associated with acidosis in asphyxiation would not be present.

The literature indicates after breathing pure nitrogen, subjects will experience the following: within eight-to-ten seconds the subjects will experience a dimming of vision, at fifteen-to-sixteen seconds they will experience a clouding of consciousness, and at

seventeen-to-twenty seconds they will lose consciousness. There is no evidence to indicate any substantial physical discomfort during this process.

There is a possibility that subjects will feel euphoria prior to losing consciousness and a slight possibility they will feel a tingling or warm sensation. After the subjects are unconscious, it should be expected some of the subjects will convulse. Most electrochemical brain activity should cease shortly after loss of consciousness, and the heart rate will begin to increase to varying degrees until it stops beating 3 to 4 minutes later. Observed suicides involving inert gas hypoxia are described as peaceful, so long as caution is taken to eliminate the possibility of the subject inadvertently receiving supplemental oxygen during the process. Inert gas hypoxia is considered such a humane and dignified process to achieve death that it is recommended as a preferred method by right -to-die groups.

Finding 2. Death sentence protocols carried out using nitrogen inhalation would not require the assistance of licensed medical professionals.

Rationale:

The administration of a death sentence via nitrogen hypoxia does not require the use of a complex medical procedure or pharmaceutical products. The process itself, as demonstrated by those who seek euthanasia, requires little more than a hood sufficiently attached to the subject's head and a tank of inert gas to create a hypoxic atmosphere.

While a state execution would likely have a more elaborate mechanism to create hypoxia, nothing in the process would require specialized medical knowledge or the use of regulated pharmaceutical products. Accordingly, except for the pronouncement of death,

the assistance of licensed medical professionals would not be required to execute this protocol.

Finding 3. Death sentences carried out by nitrogen inhalation would be simple to administer.

Rationale:

When considering a substitute method of capital punishment it is important to consider more than just what happens if everything goes according to protocol. The likelihood of mishaps must also be considered, as well as the consequences that would flow if those mishaps should occur.

Because the protocol involved in nitrogen induced hypoxia is so simple, mistakes are unlikely to occur. Oxygen and nitrogen monitors may be placed inside the contained environment to insure [sic] the proper mixes of gas are being expelled into the bag and inhaled by the subject.

However, the protocol should be careful to prevent the possibility of oxygen entering into the hood, as that can prolong time to unconsciousness and death, as well as increase the possibility of involuntary movements by the subject.

The risks to witnesses are minimal, as any potential leak of the nitrogen would not be harmful in a normally ventilated environment.

Finding 4. Nitrogen is readily available for purchase and sourcing would not pose a difficulty.

Rationale:

Nitrogen is utilized harmlessly in many fields within United States industries. Nitrogen is used in welding, hospital and medical facilities, cooking, and used in the preparation of liquid nitrogen cocktails.

Nitrogen is used as a process to extend the life of food products such as potato chips. Nitrogen is used in doctor's offices to remove skin tags as well as other procedures. Accordingly, sources of nitrogen to be used for administering a death sentence should be easy to find and readily available for purchase for such purpose.

Finding 5. Death sentences carried out by nitrogen inhalation would not depend upon the cooperation of the offender being executed.

Rationale:

Some forms of capital punishment require the offender to submit or comply to some degree in order to assure an efficient and humane method of execution. With proper protocol and utilizing such devices as a restraint chair, nitrogen inhalation can be administered despite the presence of a non-compliant offender. The use of nitrogen can be used by non-medical personnel and a delivery system can be designed to ensure the execution is carried out without issue.

Conclusion

As per the above, it is the recommendation of this study that hypoxia induced by the inhalation of nitrogen be offered as an alternative method of administering capital punishment in the State of Oklahoma.

* * *

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IGC Doc 44/09/E

HAZARDS OF INERT GASES AND OXYGEN DEPLETION

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1 Introduction

EIGA is very concerned about the accidents that industrial gas companies and users of inert gases continue to report each year, where the direct cause has been lack of oxygen resulting in asphyxiation. EIGA identified that existing information on the hazards of inert gases was not sufficiently directed at the users who were most at risk. This document sets out the essential information that is necessary to prevent asphyxiation accidents involving inert gases.

2 Scope and purpose

It is intended that this document is used as a training package suitable for supervisors, line managers, direct workers and users wherever inert gases are produced, stored, used, or where oxygen depletion could otherwise occur.

This document has 4 parts:

The main document is intended for line managers and supervisors and gives the background of the subject, the typical description of oxygen deficiency accidents and the recommended rescue preparations to be in place in case of accident.

Appendix A is a simplified summary of the main document, designed to be reproduced as a pamphlet for sharing with workers and end users.

Appendix B gives an introduction to rescue considerations from normally accessible rooms, confined spaces or pits and trenches.

Appendix C lists some actual accidents that have taken place in recent years, which can be used as examples to underline the potentially fatal hazards of inert gases.

Appendix D gives an example of a warning sign or poster to highlight the hazards of inert gases and asphyxiating atmospheres.

3 Definitions

Asphyxiation: the effect on the body of inadequate oxygen, usually resulting in loss of consciousness and/or death. This is also known as suffocation or anoxia.

Asphyxiant: any material which reduces the amount of available oxygen either by simple dilution or by reaction.

Inert gas: A gas that is not toxic, which does not support human breathing and which reacts little or not at all with other substances. The common inert gases are nitrogen and the rare gases like helium, argon, neon, xenon and krypton.

Flammable gas: a gas whose major hazard is flammability. Note that all flammable gases also act as asphyxiants.

User: for the purpose of this document this term covers any individuals, companies or other organisations that make use of the products sold by industrial gas companies. Users may be, but are not necessarily, customers.

4 General Information about Inert Gases and Oxygen Depletion

In spite of the wealth of information available, such as booklets, films and audio-visual aids, there are still serious accidents resulting in asphyxiation caused by the improper use of inert gases or by oxygen depletion. It is therefore absolutely essential to draw attention to the hazards of inert gases and oxygen depletion. Accidents due to oxygen depleted atmospheres are usually very serious and in many cases fatal.

Although carbon dioxide is not an inert gas, most of the information in this document is applicable as it too will cause oxygen depletion. However, the specific hazards and physiological effects of carbon dioxide are more complex than those of inert gases. This document does not cover these aspects. (See IGC Doc. 67 "CO2 cylinders at user's premises" for more details about the additional hazards of carbon dioxide).

4.1 Oxygen is essential for life

Oxygen is the only gas that supports life. The normal concentration of oxygen in the air we breathe is approximately 21 %. Concentration, thinking and decision-making are impaired when the oxygen concentration falls only slightly below this norm. These effects are not noticeable to the affected individual.

If the oxygen concentration in air decreases or, if the concentration of any other gases increase, a situation is rapidly reached where the risks of asphyxiation are significant. For this reason any depletion of oxygen below 21 % must be treated with concern:

Asphyxia - Effect of O_2 Concentration (from NL/77 Campaign against Asphyxiation)

O_2 (Vol %)	Effects and Symptoms
18-21	No discernible symptoms can be detected by the individual. A risk assessment must be undertaken to understand the causes and determine whether it is safe to continue working.
11-18	Reduction of physical and intellectual performance without the sufferer being aware.

8-11	Possibility of fainting within a few minutes without prior warning. Risk of death below 11%.
6-8	Fainting occurs after a short time. Resuscitation possible if carried out immediately.
0-6	Fainting almost immediate. Brain damage, even if rescued.

WARNING: The situation is hazardous as soon as the oxygen concentration inhaled is less than 18%.

With no oxygen present, inhalation of only 1-2 breaths of nitrogen or other inert gas will cause sudden loss of consciousness and can cause death.

4.2 Inert gases give no warning

It is absolutely essential to understand that with inert gases such as nitrogen, argon, helium, etc., asphyxia is insidious - there are no warning signs!

- Inert gases are odourless, colourless and tasteless. They are undetectable and can therefore be a great deal more dangerous than toxic gases such as chlorine, ammonia, or hydrogen sulphide, which can be detected by their odour at very low concentrations.
- The asphyxiating effect of inert gases occurs without any preliminary physiological sign that could alert the victim. Lack of oxygen may cause vertigo, headache or speech difficulties, but the victim is not capable of recognizing these symptoms as asphyxiation. Asphyxiation leads rapidly to loss of consciousness—for very low oxygen concentrations this can occur within seconds.

4.3 Inert gases act quickly

In any accident where the supply of oxygen to the brain is affected, prompt emergency treatment is critical. Proper medical treatment (resuscitation) if given quickly enough can prevent irreversible brain damage or even death in some instances.

Furthermore, and this is often poorly understood, the emergency rescue procedure to save the victim must be carefully thought out in advance to avoid a second accident, where members of the rescue team can become victims. Unplanned interventions resulting in the fatalities of would-be rescuers are sadly not unusual.

4.4 The ambiguity of inert gases

Everyone, particularly customers, must be aware of the ambiguity of the expression "inert gas" (sometimes called "safety gas", when it is used to prevent fire or explosion), whereby an "inert gas" is often perceived, understood and wrongly taken to be a harmless gas!

4.5 Watchfulness with regard to inert gases and oxygen depletion

Considering the hazards mentioned above, it is essential to provide all those who handle or use inert gases (gas company personnel as well as customers) with all the information and training necessary regarding safety instructions. This includes the means of prevention and procedures to be respected to avoid accidents, as well as planned rescue procedures to be implemented in the event of an accident.

5 Some typical situations with inert gas and/or oxygen depletion hazards

5.1 Confined or potentially confined spaces and enclosures

Confined, restricted or enclosed spaces are particularly dangerous situations where an inert gas may be normally present (inside a process vessel), may have accumulated (from leaks or vents) and/or because the space has not been adequately vented or purged, and/or the renewal of air is poor or ventilation is inadequate.

Examples of such spaces include:

- Confined spaces: tanks, vessels, reservoirs, the inside of "cold boxes" of liquefaction equipment, cold storage rooms, warehouses with fire suppressant atmospheres, etc.
- Enclosures: analyzer or instrument cabinets, small storage sheds, temporary/tented enclosures, or spaces where welding protective gas is used, etc

The precautions required for safe access by personnel will be different in each of these cases as explained in Appendix B.

5.2 The use of inert cryogenic liquids

It is to be noted, that the use of inert cryogenic liquids such as nitrogen or helium is accompanied by two primary hazards:

- The fluids are very cold (-196°C for nitrogen and -269°C for helium) and can cause serious cold burns on contact with the skin.
- Once vaporised both products will generate a large volume of cold inert gas (e.g. 1 litre of liquid nitrogen will yield 680 litres gaseous product) that will displace ambient air, causing oxygen deficiency and may accumulate in low points.

In processes where cryogenic liquids are handled and vaporisation takes place, special care must be taken to avoid situations where personnel are exposed to oxygen deficiency. These may be in rooms which people regularly enter or work in.

Examples of such spaces include:

- The internal rooms of a building where cryogenic liquid cylinders/dewars are filled and/or stored,
- Laboratory rooms,
- Elevators (lifts) used for transport of dewars,
- Rooms where liquid nitrogen food freezers are operated. (Tunnel, cabinet)
- Rooms where Magnetic Resonance Imaging (MRI) scanner or other liquid helium cooled equipment is used
- Rooms in which cryogenic de-flashing equipment is operated.

Notes: Due to the extremely low temperature of liquid helium a secondary hazard may exist where the product is flowing through hoses or pipes. In this case it is possible for the components of air to liquefy on the outside of the hose/pipe, possibly leading to pooling of liquid containing levels of enriched oxygen. [See Ref. 7].

5.3 Areas near where inert gases are vented or may collect

The risk of asphyxiation can arise, even outdoors, in the vincinity of:

- Gas leaks
- Vent exhausts

- Outlet of safety valves and rupture disks
- Openings of machines in which liquid nitrogen is used for freezing
- Blind flanges
- Near manways/access to vessels or purged enclosures (e.g. ASU cold boxes, electrical enclosures)

Any cold gas or heavier-than-air gas will travel or "flow"—often unseen—and collect even outdoors, in low spaces such as:

- Culverts
- Trenches
- Machine pits
- Basements
- Elevator (lift) shafts

Similarly and just as dangerously lighter-than-air gases (e.g. helium) will rise and collect in unventilated high points such as:

- Behind false ceilings
- Under a roof

5.4 Use of inert gas instead of air

Planned Use

In many workplaces, there are often compressed inert gas distribution networks that are used for process applications, safety or instrumentation purposes, e.g. inerting/purging of reactors or using nitrogen as a pressure source to operate pneumatic equipment (such as jackhammers) or as instrument fluids.

Additionally, nitrogen is often used as either a backup to, or substitute for, an instrument air system.

Where it is used as a backup supply in case of instrument air compressor failures it is quite common to find a nitrogen supply connected to an air supply by means of isolation valves. It must be appreciated that most pneumatically operated instruments vent continuously and that the vented nitrogen may accumulate in poorly ventilated control panels/cubicles or plant rooms. This can present a serious asphyxiation risk. Where nitrogen is used temporarily to substitute for compressed air in this way, it must be done under strictly controlled conditions such as a permit to work, and all relevant personnel shall be informed.

Improper Use

In situations where piped breathing systems exist there is always the potential for employees, who are insufficiently trained or not familiar with the systems, to connect the breathing apparatus to a nitrogen system with fatal results. Such systems must be clearly marked and ideally the breathing air system should have a dedicated connection type not used elsewhere in the premises.

5.5 Dangers of improper inhalation (abuse) of inert gases

There has been increased of reporting and presentations in TV-programmes on the careless approach and dangerous misuse of breathing in gases such as helium and other inert rare gases. The media reports in particular trivialise the effects of inhaling helium to achieve a very high-pitched voice. Inhalation of helium can lead to unconsciousness, cessation of breathing and sudden death.

[See Ref. 6 for more information]

6 Hazard mitigation and preventive measures

6.1 Information, training

All persons who handle or who use inert gases shall be informed of:

- Safety measures that should be adopted when using gases.
- The hazard represented by the release of inert gases in to the working space and the potential for oxygen depletion.
- Procedures to be observed should an accident occur.

This information and training should be systematically and periodically reviewed in order to ensure that it remains up to date and appropriate for the hazards identified.

6.2 Proper installation and operation

Equipment for the manufacture, distribution or use of inert gas must be installed, maintained and used in accordance with:

- All applicable regulations.
- The recommendations of the supplier
- Industrial gas industry standards and codes of practice

Newly assembled equipment for inert gas service must undergo a proof test and be leak-checked using suitable procedures.

Each inert gas pipeline entering a building should be provided with an easily accessible isolation valve outside the building. Ideally such valves should be remote activated by push buttons or other safety monitoring equipment.

Discontinued inert gas lines shall be physically disconnected from the supply system when not in use.

At the end of each work period, all valves that isolate the inert gas should be securely closed to avoid possible leakage between work periods.

6.3 Identification and safeguarding of potentially hazardous areas

Measures should be taken to identify potentially hazardous areas, or restrict access to them, e.g.

- Warning signs should be displayed to inform of an actual or potential asphyxiation hazard (An example is shown in Appendix D). The warning sign should be associated with measures to prevent unauthorised entry to the areas.
- Temporary or permanent barricades, for example physical lock on vessel manway or barricades around temporary excavations.
- Communication to site personnel to ensure awareness and understanding.

6.4 Ventilation and atmospheric monitoring for inert gases and oxygen deficiency

Typically there are three situations where the need for ventilation or atmospheric monitoring must be assessed in order to avoid asphyxiation accidents from inert gases and/or oxygen depletion:

6.4.1 Ventilation/ monitoring of rooms which people regularly enter or work in

Examples in this category would include:

- Rooms containing inert gas pipelines with possible leaks such as compressor houses, control rooms (with control/analyser panels).

- Rooms where inert cryogenic liquid is used or stored (see 5.2 above)

Building/room size, ventilation capacity, system pressures, etc. must be determined for each specific case. The following guidelines can be applied to ventilation system design:

- Ventilation must be continuous while the hazard exists. This can be achieved by interlocking the ventilation system with the process power supply.
- Ventilation system design should ensure adequate air flow around the normal operating areas.
- Good engineering practice indicates a minimum ventilation capacity of 6-10 air changes per hour.
- The use of devices to indicate correct system operation, such as:
  - Warning lights
  - "Streamers" in the fan outlet,
  - Flow switches in the suction channels (monitoring should not rely only upon secondary controls such as "power on" to the fan motor).
- Exhaust lines containing inert gases shall be clearly identified, and should be piped to a safe, well ventilated area outside the building, away from fresh air intakes.
- Consideration should be given to the use of workplace atmospheric monitoring, e.g. personal oxygen analyser or an analyser in the work area, location to be based on assessment of the areas described in 5.3.

- People working in or entering the area shall be aware of action required in event of alarms from atmospheric monitors or loss of ventilation.

6.4.2 Ventilation/ monitoring prior to entry into confined spaces or enclosures

As described in 5.1 above, these spaces would include enclosures or vessels which:

- Are not routinely entered and
- Are known to have contained inert gas or
- May contain inert gas or low concentration of oxygen
- Any vessel not known and verified to contain atmospheric air.

In these cases the following guidelines apply to prepare a safe atmosphere prior to entry:

- Sources of inert gas must be isolated from the space or enclosure by positive blinds or by disconnection of lines. Never rely only on a closed valve.
- The vessel or enclosure must be adequately purged with air (i.e. remove the inert gas and substitute with air).
    - It is necessary to have at least 3 complete air changes within the enclosure involved.
    - Purging shall continue until analysis confirms that the quality of the vessel atmosphere is safe for personnel entry. If there is any doubt that effective purging has taken place, the analysis should be made in the interior of the vessel by taking a sample at several locations by probe, or if this is not

possible, by a competent person using a self contained breathing apparatus.

- The purge system must ensure turbulence for adequate mixing of air and inert gas to take place (to avoid "pockets" of dense or light inert gases remaining or to avoid "channelling" of gases due to inadequate purging).
- Removal of argon or cold nitrogen from large vessels and deep pits can be difficult due to the relatively high density of the gas compared with air. In that case the gas should be exhausted from the bottom of the space.
- Ventilation should never be carried out with pure oxygen, but exclusively with air.

- Another method of removing inert gases is to fill the vessel with water and allow air to enter when the water is drained off.
- Oxygen content of the atmosphere in the enclosure/vessel shall be monitored continuously or repeated at regular intervals.
- Consideration should also be given to the use of personal oxygen monitors.

Where a safe atmosphere cannot be created and confirmed, then the task must only be performed by competent personnel provided with a positive breathing air supply.

6.4.3 Ventilation/monitoring for entry into other spaces where inert gases may be present

This type of confined space is one that has any of the following characteristics:

- Limited opening for entry and exit

- Unfavourable natural ventilation

Examples are listed in sections 5.1 and 5.3 and include;

- Underground works
- Trench/pit deeper than 1 metre
- Small rooms where gases are stored but not designed for continuous worker occupancy.

In the majority of these cases the presence of inert gases is not anticipated when entering such spaces. However, the one essential safeguard in all cases is to sample the atmosphere in the room, enclosure, trench, pit, etc. for oxygen prior to any entry. Where appropriate a continuous fixed point monitoring device should be used.

The fact that an oxygen deficient atmosphere is not normally expected is the greatest danger.

6.4.4 Notes on purging requirements

The guidance for air changes, mentioned in section 6.4.2, is valid where nitrogen is the inert gas involved because its density is very near to that of air and oxygen.

If the gas to be purged has a density very different from the density of air, such as helium, argon or carbon dioxide, etc. the ventilating air may not adequately mix and the purge may be inadequate.

For inert gases of this type the volume of gas to be displaced (air changes) must be at least 10 times that of the volume involved. The preferred method of removal of very dense gases (e.g. argon or cold nitrogen vapour) is to suck out the gas from the bottom of the space.

In the presence of toxic or flammable gases, it is mandatory to perform an additional analysis of the gases present in the confined space, before entry of personnel. For obvious reasons, the measurement of only the oxygen content is not sufficient in this case. All other dangerous toxic or flammable gases must also be analysed.

In the specific case of flammable gases, a nitrogen purge must be used first to prevent any explosion risk and then subsequently purge with ventilating air.

6.5 Testing of oxygen content

Historically, the need to check that an atmosphere is respirable has been considered to be of the greatest importance. In the past, simple means were employed, such as, for example, the lighted candle or the canary bird.

Currently, various types of oxygen analysers are available, which are often reliable and simple and to operate. The selection of the type of apparatus depends on the nature of the work in the place to be monitored (presence of dust, temperature and humidity, multiple detectors, portable equipment, etc.).

- Oxygen analysers are critical equipment and must be properly maintained and calibrated in order to sufficiently reliable [sic]. It is also important to ensure that fixed and portable detectors are properly positioned to measure a representative sample of the atmosphere.
- A simple way check to confirm that an oxygen analyser is operating properly before use is to measure the oxygen content of the open air (21%). This check should be part of the work permit requirements.

- All oxygen analysers should be fitted with an alarm device to indicate possible defects (e.g. low battery).
- The minimum safe oxygen concentration for entry into a space that is being controlled or measured because of the risk is 19.5 % oxygen. There are applications with oxygen concentrations below 19.5 % where entry is permitted provided that further precautions are taken in accordance with proper risk assessment and national regulations (e.g. fire suppression). [See Ref 4]

6.6 Work permit

For certain types of work, safety instructions and a special work procedure must be set up in the form of a work permit, this particularly relates to any form of confined space entry. [See Ref 8]

This procedure is necessary during work carried out by subcontractors in air separation cold boxes, or where vessel entry is required.

It is important that a work permit procedure deals with the detailed information that must be given to involved personnel before the start of work. This information should include contractual conditions together with documented risk assessments, procedures and the training of site workers.

6.7 Lock-out Tag-out procedure

To ensure any sources of inert gas have been properly isolated, the implementation of a stringent, formal lock-out and tag-out procedure is necessary before safe entry into a confined space.

6.8 Protection of personnel

The type of work to be performed, the layout of the premises and the assessment of potential rescue scenarios will determine the provision of additional protective measures. This additional protection should include organisational measures and/or safety equipment such as:

- Fixed or personal oxygen monitoring equipment
- The wearing of a harness so that the worker can be easily and rapidly taken out of an enclosed space in the case of an emergency. Preferably, this harness is to be connected to a hoist to facilitate removing the victim. (In practice, it is extremely difficult for one person to lift up another person in the absence of a mechanical aid of some kind.)
- The provision of an alarm system in case of an emergency.
- The wearing of a self contained breathing apparatus (not cartridge masks, which are ineffective in a case of lack of oxygen).
- In the case of work inside a confined space, a standby person should be placed on watch outside the space/vessel.
- Having a self contained breathing apparatus on stand by.
- The wearing of other personal protective equipment such as safety boots, hard hat, goggles or gloves, depending on the hazards of the location and task.

7 Confined space entry

The employer has an overriding duty to ensure that tasks in confined spaces with potentially hazardous atmospheres are performed without entry whenever this is practical. Only if it there [sic] is no practical alternative shall people be required to enter confined spaces.

Any entry into a confined space or enclosure with a potentially hazardous atmosphere shall be carefully controlled and have:

- A written method statement for the work to be undertaken with the space.
- A documented risk assessment for performing this task in this particular vessel.
- Formal, stringent lock-out and tag-out procedures.
- An assessment of potential scenarios where rescue may be required.
- An emergency (rescue) plan to deal with any possible accident scenario related to entry in to the enclosure or vessel.
- Rescue personnel and equipment should be available as required by the rescue plan.
- Trained and competent personnel in roles of; entrant, stand-by watch, rescue team (where required) and supervisor/permit issuer.
- A safe work permit issued and signed before entry is allowed.

This document is not a detailed procedure for confined space entry, but focuses on the considerations

which are important where there is an actual or potential hazard from inert gases or oxygen deficiency.

8 Rescue and first-aid

Awareness training in the hazards of inert gases and oxygen deficient atmosphere is of vital importance for everyone who might enter a space or who might discover and [sic] affected person in a space with potentially asphyxiant atmosphere, in order to prevent subsequent fatalities as result of "unplanned rescue" attempts.

Training in rescue work is fundamental since quickly improvised rescue without the formality of a procedure, often proves to be ineffective, if not catastrophic, i.e. the rescue worker lacking foresight becomes a second or even a third victim. This is one of the most common causes of multiple fatalities in cases involving asphyxiation.

8.1 Basic rules

If a person suddenly collapses and no longer gives any sign of life when working in a vessel, a partially enclosed space, a trench, a pit, a small sized room, etc., it MUST be assumed that the person may lack oxygen due to the presence of an inert gas (which is, as mentioned, odourless, colourless and tasteless):

WARNING: the discoverer must assume that his life is at risk entering the same area!

The risk is that the rescuer will become the second victim, which obviously must be avoided at all costs. Ideally he should raise an alarm and call for assistance so that a prepared rescue can be carried out.

Rescuers intent on saving a possible asphyxiation victim should only do so if they have the necessary

equipment, have been suitably trained, have proper assistance and support.

8.2 Rescue plan elements

The method of rescue will be determined by the access to particular space. If practical a non-entry rescue is preferred. Appendix B lists the considerations which should be given to rescue plans from three different situations:

- Rescue from normally accessible rooms
- Rescue from Confined Spaces
- Rescue from pits, trenches or excavations

In each case the Rescue plan must have elements which address:

- How the alarm is raised
- Identification of possible rescue scenarios (not only for low oxygen effects)
- Any scenarios in the surrounding work place which may or may not require immediate exit from the space (e.g. site evacuation in event of fire elsewhere)
- Stand-by watch trained to keep visual and verbal contact with the entrant and to ensure the entrant exits the space if symptoms of oxygen deficiency are suspected or observed
- Any assistance which may be needed/given from outside the space to help entrant escape from the space, without further entry.
- Re-checking/confirmation of atmosphere prior to rescue

- Manpower and equipment required to move unconscious person from that space
- Provision of first aid/medical treatment (e.g. resuscitation and/or oxygen treatment) inside the space if necessary
- Safe access by rescue and/or medical personnel if necessary
- How to make the space safe/prevent further injury after the rescue.

8.3 Equipment

A successful rescue action may need some of the following equipment. The actual needs must be assessed as part of the rescue plan and made available and accessible during the confined space work:

- A portable audible alarm devices [sic], e.g.; personal horn, whistle, klaxon etc. to alert nearby people that assistance is required.
- Telephone or radio at the work site so that an alarm can be raised in event of problems
- A safety belt or harness connected to a line
- Mechanical aid such as pulley, hoist, to extract the victim.
- Possibly a source of air or oxygen to ventilate the confined space, such as:
  - A compressed air hose connected to the plant compressed air network,
  - A ventilation device.
- Additional oxygen monitors for rescue team for re-checking conditions inside the space

- Positive pressure breathing air supply. This may be an externally fed breathing air system or self-contained breathing apparatus (SCBA).

WARNING: Cartridge masks for toxic gases are not suitable as they do not replenish missing oxygen.

- A resuscitation kit supplied with oxygen for the victim. In general, such a kit includes a small oxygen cylinder, a pressure regulator, an inflatable bag, and a mask to cover both the nose and mouth of the victim.
- Stretcher to carry injured person out of the space, away from work place and/or to ambulance.

It should be noted that any equipment identified as necessary to carry out an emergency rescue from a confined space should be defined on the basis of a full risk assessment and the emergency plan developed from it. Where this equipment is not available, a rescue should not be undertaken.

8.4 Rescue training

Where an emergency plan considers that a rescue is to be performed, it is recommended that there is an annual programme of training including practical rescue drills. It is also a good practice to consider a rescue exercise before start of confined space work.

8.5 First Aid

Where there is a potential hazard from inert gases/ oxygen deficiency it is advisable to have personnel available who are formally qualified to give first aid and/or perform resuscitation in the event of an accident. The simplest first aid treatment for someone suffering from effects of oxygen deficiency is to bring

the affected person into fresh air—as long as it safe to do so!

In most countries additional training is required so that first aiders are qualified to provide Oxygen as medical treatment for anoxia and other conditions.

9 Conclusions

There are two essential points to remember related to oxygen deficiency accidents involving inert gases:

- Accidents resulting from oxygen deficiency due to inert gases happen unexpectedly and the reactions of personnel may be incorrect. To avoid this, all personnel who may work with, or may be exposed to, inert gases must have routine awareness training in respect of the hazards of these gases.
- Accidents involving asphyxiant atmospheres are always serious, if not fatal. It is absolutely necessary to carry out both regular and periodic awareness training sessions for all personnel, as well as rescue drills.

10 References

[1] CGA document SB-2 2007 Oxygen-Deficient Atmospheres

[2] EIGA Asphyxiation campaign documents 2003—including Dangers of Asphyxiation leaflet; Oxygen Deficiency training presentation and Newsletter 77/xx

[3] Oxygen deficiency hazards. Video tape EIGA, 1997

[4] EIGA Position Paper PP-14: Definitions of Oxygen Enrichment/Deficiency Safety Criteria—August 2006.

[5] US Chemical Safety and Hazard Investigation Board website Video Room www.csb.gov

[6] EIGA position Paper PP-24: Abuse of Gases

[7] IGC Doc 004 Fire Hazards of Oxygen and Oxygen Enriched Atmospheres

[8] IGC Doc 040 Work Permit Systems

Appendix A: Summary for operators

1 Why do we need oxygen?

OXYGEN IS ESSENTIAL FOR LIFE
WITHOUT ENOUGH OXYGEN WE CANNOT LIVE

When the natural composition of air is changed, the human organism can be affected or even severely impaired.

If gases other than oxygen are added or mixed with breathing air, the oxygen concentration is reduced (diluted) and oxygen deficiency occurs.

If oxygen deficiency occurs due to the presence of inert gases (e.g. nitrogen, helium, argon, etc.) a drop in physical/mental efficiency occurs without the person's knowledge; at about 11 % oxygen concentration in air (instead of the normal 21 % concentration) fainting occurs without any prior warning.

Below this 11 % concentration there is a very high risk that death due to asphyxiation will occur within a few minutes, unless resuscitation is carried out immediately!

See also EIGA Safety Newsletter NL/77 Campaign against Asphyxiation

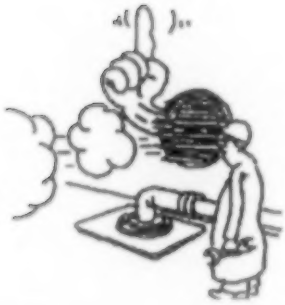
2 Causes of oxygen deficiency

a) When liquefied gases (such as liquid nitrogen, liquid argon, or liquid helium) evaporate, one litre of liquid produces approximately 600 to 850 litres of gas. This enormous gas volume can very quickly lead to oxygen deficiency unless there is adequate ventilation.

b) In the event of gases other than oxygen leaking out of pipe work, cylinders, vessels, etc., oxygen deficiency must always be expected. Checks should be made periodically for possible leaks.

Spaces with limited or inadequate ventilation (e.g. vessels) must not be entered unless air analysis has been made, safe conditions are confirmed and a work permit has been issued.

c) If work has to be carried out in the vicinity of ventilation openings, vent pipes or vessel man ways for example, personnel must be prepared to encounter gases with low oxygen concentration or without oxygen at all, being discharged from these openings.



d) Oxygen deficiency will always arise when plant and vessels are purged with nitrogen or any other inert gases.

3 Detection of oxygen deficiency

HUMAN SENSES CANNOT DETECT OXYGEN DEFICIENCY

Measuring instruments give an audible or visual alarm of oxygen concentration and can indicate the oxygen content.

These instruments should always be tested in the open air before use.

If the presence of toxic or flammable gases is possible, specific instruments should be used.

4 Breathing equipment

Breathing equipment must be used in situations where oxygen deficiency has to be expected and which cannot be remedied by adequate ventilation.

Cartridge gas masks necessary for use in the presence of toxic gases (such as ammonia, chlorine, etc.) are useless for this purpose.

Recommended types of breathing equipment are:

- Self contained breathing apparatus using compressed air cylinders;
- Full-face masks with respirator connected through a hose to a fresh air supply.

NOTE:

- It should be born in mind that when wearing these apparatus, particularly with air filled cylinders, it might sometimes be difficult to enter manholes.
- Periodic inspection of the correct functioning of the equipment shall be carried out in accordance with local regulations.
- Users shall be trained and shall practice handling of the equipment regularly.

5 Confined spaces, vessels, etc.

Any vessel or confined space where oxygen deficiency is expected and which is connected to a gas source shall be disconnected from such a source:

By the removal of a section of pipe; or by inserting a blanking plate before and during the entry period.

Reliance on the closure of valves alone might be fatal.

A space or vessel should be thoroughly ventilated, and the oxygen content shall be measured periodically before and during entry period.

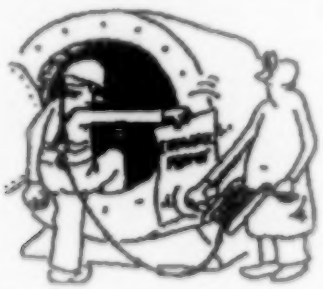
If the atmosphere in such a vessel or space is not breathable, a qualified person shall use breathing equipment.

Permission to enter such a space shall be given only after the issue of an entry permit signed by a responsible person.

As long as a person is in a vessel or confined space, a watcher shall be present and stationed immediately outside of the confined entrance.

He shall have a self-contained breathing apparatus readily available.

The person inside the confined space to facilitate rescue shall wear a harness and rope. The duty of the watcher should be clearly defined. A hoist may be necessary to lift an incapacitated person.



6 Emergency Measures

In the event of a person having fainted due to oxygen deficiency, he can only be rescued if the rescue personnel are equipped with breathing apparatus enabling them to enter the oxygen deficient space without risk.

Remove the patient to the open air and administer oxygen without delay from an automatic resuscitator if available or supply artificial respiration. Guidelines and instructions for resuscitation can be obtained from the European Resuscitation Council (Internet Homepage: www.erc.edu).

Continue until patient revives or advised to stop by qualified medical personnel.

Appendix B1: Rescue considerations from normally accessible rooms

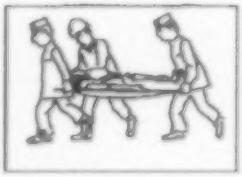
Planned Rescue Scenario:

If work is undertaken on inert gas or cryogenic liquid systems within an enclosed room it is suggested that:

- The entrant carries a personal oxygen monitor in addition to any fixed systems as the oxygen concentration may vary within the room if ventilation is absent or inadequate for the leak rate.
- The atmosphere within the space is checked before entry

- A stand-by watch is posted outside the space, to keep visual and verbal contact with the entrant and to ensure the entrant leaves the room unaided in case of early symptoms of oxygen deficiency

- The stand-by watch can raise an alarm by telephone or radio on [sic] event of problems
- The stand-by watch has Self Contained Breathing Apparatus (SCBA) ready so that he can safely enter the enclosed room to go to the assistance of, or to extract the victim if necessary.
- Unless a plan is in place so that the entrant can be safely removed by the standby-watch alone, then the rescue team should have been warned of the confined space entry work in progress, and be ready with Self Contained Breathing Apparatus (SCBA) and other equipment so that they can safely enter the Confined space to go to the assistance of, or to extract the victim if necessary.
- Plans have been made to obtain treatment/ assessment from qualified medical personnel for the victim as soon as possible after he is retrieved from the room.



Unplanned Rescue Scenario:

If a person is found collapsed in a room where there is a potential inert gas leak / oxygen deficient atmosphere, then the discoverer must assume that his life is at risk entering the same area. He should raise an alarm and call for assistance so that a prepared rescue can be carried out.

ONLY if the collapsed person can be reached, from outside the room should any consideration be given to extracting the victim from the space and bringing him out to fresh air and medical attention.

IF the victim has collapsed as a result of an oxygen deficient atmosphere and been there for any length of time it is very likely that he is dead and the discoverer's life is risked in vain.

Appendix B2: Rescue considerations from Confined Spaces

Planned Rescue Scenario:

If work is undertaken within a Confined Space such as a vessel or a difficult access space, with potential inert gas/ oxygen deficient atmosphere, it is essential that:

- The atmosphere within the space is made safe, ventilated and checked before entry
- The entrant carries a personal oxygen monitor.
- If practical the entrant wears a body harness with life line, so that he can be removed from the space by persons outside. A hoist or other mechanical aid may be needed

- A stand-by watch is posted outside the space, to keep visual and verbal contact with the entrant and to ensure the entrant exits the Confined Space if symptoms of oxygen deficiency are suspected or observed

- The stand-by watch can raise an alarm to call a trained rescue team by telephone or radio on event of problems
- The rescue team should have been warned of the confined space entry work in progress, and be ready with Self Contained Breathing Apparatus (SCBA) and other equipment so that they can safely enter the Confined space to go to the assistance of, or to extract the victim if necessary.
- The stand-by watch should never enter the Confined Space.
- Plans have been made to obtain treatment/ assessment from qualified medical personnel for the victim as soon as possible after he is retrieved from the room.

Unplanned Rescue Scenario:

All Confined Spaces shall be closed or barricaded to prevent unauthorised access. There should be no possibility for uncontrolled entry into the Confined Space, so the "unplanned rescue" situation should not occur!

If however a person is found collapsed in a Confined Space where there is a potential inert gas / oxygen deficient atmosphere, then the discoverer must assume that his life is at risk entering the same area. He must raise an alarm and call for assistance so that a prepared rescue can be carried out.

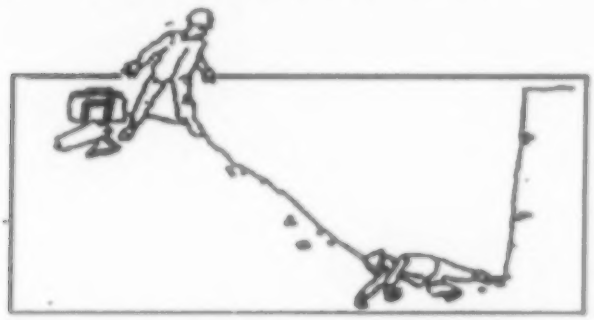
IF the victim has collapsed as a result of an oxygen deficient atmosphere and been there for any length of time it is very likely that he is dead and the discoverer's life is risked in vain.

Appendix B3: Rescue considerations from pits, trenches

Planned Rescue Scenario:

If work is undertaken in an excavation, trench, pit, or other open spaces with potential inert gas / oxygen deficient atmosphere, it is strongly recommended that:

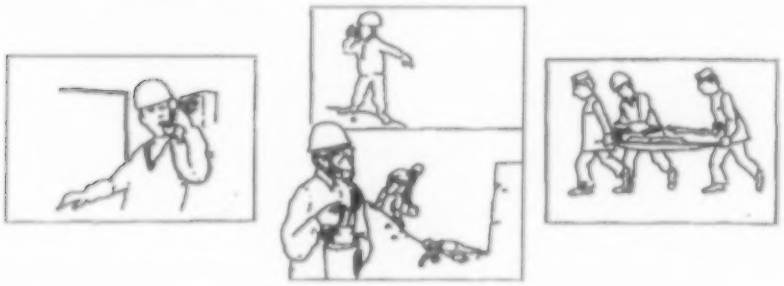
- The atmosphere within the space is checked before entry
- The entrant carries a personal oxygen monitor, as the oxygen concentration may vary within the space if there is limited fresh air circulation.



- A stand-by watch is posted outside the space, to keep visual and verbal contact with the entrant and to ensure the entrant exits the area unaided if symptoms of oxygen deficiency are suspected or observed.
- The stand-by watch can raise an alarm to call a trained rescue team by telephone or radio on [sic] event of problems.
- The stand-by watch has Self Contained Breathing Apparatus (SCBA) ready IF it is practical for h .n enter the enclosed room to go to

the assistance of, or to extract the victim alone.
OR

- The rescue team should have been warned of the confined space entry work in progress, and be ready with Self Contained Breathing Apparatus (SCBA) and other equipment so that they can safely enter the space to extract the victim if necessary
- Plans have been made to obtain treatment/ assessment from qualified medical personnel for the victim as soon as possible after he is retrieved from the room.



Unplanned Rescue Scenario:

If a person is found collapsed in a trench, pit or other space where there is a potential inert gas leak / oxygen deficient atmosphere, then the discoverer must assume that his life is at risk entering the same area. He should raise an alarm and call for assistance so that a prepared rescue can be carried out.

IF the victim has collapsed as a result of an oxygen deficient atmosphere and been there for any length of time it is very likely that he is dead and the discoverer's life is risked in vain.

In addition it will often require several people to remove a victim from these kinds of spaces.

Appendix C: Accidents involving oxygen deficiency

The following list highlights real accidents recorded by EIGA, some of them very recent. The list illustrates how essential it is to regularly draw the attention of our personnel, as well as that of our customers, to the hazards of inert gases and oxygen deficiency.

1. A new pipeline in a trench was being proof tested with nitrogen. A charge hand entered the trench to investigate the cause of an audible leak. He was overcome by nitrogen and died.

2. A workman was overcome by lack of oxygen after entering a large storage tank, which had been inerted with nitrogen. Two of his workmates, who went to his aid, without wearing breathing equipment, were also overcome and all three died.

3. A man was overcome on entering a steel tank which had been shut up for several years. The atmosphere inside the tank was no longer capable of supporting life due to removal of oxygen from the air by the rusting of steel.

4. A worker from a contractor company had to carry out welds inside a vessel. The vessel had been under a nitrogen blanket, but was ventilated with air before work started. In order to be on the safe side, the welder was asked to wear a fresh air breathing mask. Unfortunately a fellow worker connected the hose to a nitrogen line and the welder died from asphyxiation.

This accident happened because the nitrogen outlet point was not labelled and had a normal air hose connection.

5. Welding work with an argon mixture was performed inside a road tanker. During lunchtime the welding torch was left inside the tank, and as the valve

was not properly closed, argon escaped. When the welder re-entered the tank, he lost consciousness, but was rescued in time.

Equipment that is connected to a gas source, except air, must never be left inside confined spaces during lunch breaks, etc. Merely closing the valves is not a guarantee against an escape of gas. If any work with inert gas is carried out in vessels, etc. take care with adequate ventilation or the use of proper breathing equipment.

6. A driver of a small-scale liquid nitrogen delivery service vehicle was making a delivery. He connected his transfer hose to the customer-installed tank, which was situated in a semi-basement. After he had started to fill, one of the customer's employees told him that a cloud of vapour was forming around the tank. The driver stopped the filling operation and returned to the area of the tank to investigate. On reaching the bottom of the stairs, he collapsed, but fortunately he was seen by one of the customer's staff that managed to put on breathing apparatus, go in and drag the man to safety. The driver fully recovered.

Unknown to the driver, the bursting disc of the storage tank had failed prior to the start of his fill and as soon as he started filling, nitrogen escaped in the vicinity of the storage tank. The oxygen deficient atmosphere overcame him when he went down to investigate without wearing his portable oxygen monitor, which would have warned him of the oxygen deficiency. The installation had been condemned and was no longer being used. Not only was the tank situated in a semi-basement, but the relief device was also not piped to a safe area.

7. During a routine overhaul of an air separation plant, a maintenance technician had the task of changing the filter element on a liquid oxygen filter. The plant was shut down and a work permit was issued each day for each element of work. In spite of these precautions, the technician collapsed when he inadvertently worked on the filter after it had been purged with nitrogen. The fitter collapsed apparently asphyxiated by nitrogen. All efforts to revive him failed.

8. At a cryogenic application, the equipment pressure relief valve located on the equipment inside the building opened because the pressure in the storage tank outside increased above the setting of the equipment pressure relief valve. Personnel about to enter the room the next morning were warned by the frosted appearance and did not enter.

9. A customer was supplied with 2 low temperature-grinding machines, which were located in the same area in the factory. The customer installed a joint nitrogen extraction system between the two machines. One machine was switched off for cleaning while the other machine was left running. One of the operators who had entered the unit for cleaning fell unconscious and was asphyxiated before help arrived. The linked extraction system had allowed exhausted nitrogen from the operating machine to flow into the unit to be cleaned.

10. A driver was fatally asphyxiated during commissioning of a nitrogen customer station. The customer station tank was located in a pit that was not recognized as a confined space by the design team, distribution operation team or the driver. The driver was sent to do the commissioning by himself.

During the commissioning the driver made a mistake in opening the liquid supply line valve, instead of the gas vent valve, for purging and cool down of the tank. It is believed he did not immediately notice the valving error partially due to a modified manifold that allowed gas to vent from an uncapped drain in the liquid supply line. When the driver opened the valve gas started venting as would normally occur except from the wrong location. Once he noticed that liquid rather than gas venting, he went into the pit to correct the valving error. At this point he walked into a nitrogen rich/oxygen deficient atmosphere.

11. A group of workers were routinely working at the in-feed end of a tunnel freezer. As the temperature of the tunnel was approaching the desired set point, a new operator noticed that there was a cloud of N_2 gas coming out at exit end of the freezer. He suddenly increased the speed of the scroll fan in order to remove the gas from exit to product entrance. The exhaust and scroll fans were running on manual mode. As a result, the N_2 cloud moved to product entrance and five workers who were working around the loading table passed out. Fortunately, there were no serious injuries and all of them returned to work after taking a rest.

12. On an ASU still in commissioning phase three painters from a sub-subcontractor were working on a ladder to complete external painting works on nitrogen/water tower. To complete the painting of top tower section a wooden plank was put across the exhaust section to atmosphere. One painter climbed on the plank, surrounded by the nitrogen stream, and fell off inside the tower. The two other painters rushed from the ladder to the plank to rescue their team mate. Both collapsed into the tower as well. The three painters died before they could be rescued.

13. An experienced contractor was used to purge a natural gas pipeline, 0.5m diameter 10 km long, with nitrogen before start-up. When one contractor employee and two customer employees entered the remotely located chamber, they were asphyxiated and later found dead in the chamber. Two blind flanges were leaking and the oxygen monitor was not used.

14. A customer nitrogen tank, volume 10 m^3, on a PSA plant was to be inspected by the competent body. The inspector entered the tank and lost consciousness immediately. Two persons from the gas company participating in the inspection managed to bring the inspector out without entering the tank. The inspector recovered.

15. A liquid CO_2 tank was installed. The tank should be purged with air but mistakenly the hose was connected to nitrogen. The tank manhole was situated 4 m above ground. For reasons unknown, a contract employee brought a ladder, entered the tank and was asphyxiated. Previously that morning employees had been told not to enter the tank before the atmosphere was officially checked.

16. Employee stepped into a control cubicle where the instrument air was temporarily replaced with N2 during shutdown. The green light outside the door was on indicating safe atmosphere. As soon as he stepped into the cubicle his personal O_2 monitor alarmed indicating 18% O_2 or less. After exiting safely he opened the door and when O_2 level was OK, checked the fan. The ventilation fan was not running. The light was wrongly wired.

17. The perlite in a storage tank under erection had to be emptied by a contractor company, familiar with this job. During this work one of the workers fell down

in the perlite, depth approximately 3m, and was asphyxiated.

18. During the cleaning and painting maintenance of the internal and external surfaces of a water tank, one operator suffered anoxia due to nitrogen being used to purge the vessel instead of air. Two employees tried to rescue the victim and fainted. These two operators were rescued and transported to hospital for intensive care however the original operator died.

19. During the installation of a new LIN phase separator on LIN pipe work at a customer site, a technician went into the roof space. His personal oxygen-monitoring device began to alarm immediately, indicating low oxygen levels. The technician left the roof space immediately and informed the customer. Later in the same week, the customer owned food-freezing machinery was operating, and a project engineer measured concentrations far below 19% in the production room. He left the room, asked all subcontractors to stop work and leave the room, and informed the customer. Investigation showed that the customer had not connected the exhaust ducting to the food-freezing machine that they owned and installed. The exhaust pipes ended in the attic space, not being extended to the atmosphere. Customer had "bridged" the alarm/trip output so LIN supply would not be shut off by low O_2 concentrations.

20. An experienced site employee wanted to take some photographs to add to a report concerning production problems relating to problems with leaks in the argon condenser. In the control room he asked a Contractor to accompany him to take photographs of equipment in the cold box. One hour later the two men were found unconscious in a manhole access to the cold

box. Emergency authorities were called and declared the two men dead.

21. Two people on a customer's site were asphyxiated and died whilst attempting to unblock a pipe, using Argon gas in a confined space. The use of Argon gas in this application is not authorised. The incident took place in a sump 2 metres below ground level, which is used to drain water from a

22. An air compressor that provided instrument air to an acetylene plant and for breathing air failed. A back-up nitrogen supply from a liquid cylinder was connected to the piping system to replace the function of the air compressor. An operator put on a full respiratory face mask to load Calcium Carbide into the hopper and inhaled nitrogen. He died.

Appendix D: Hazard of inert gases sign

DANGER OF DEATH

Potential Asphyxiating

Atmosphere

Bulletin
U.S. Chemical Safety and Hazard Investigation Board

HAZARDS OF NITROGEN ASPHYXIATION

No. 2003-10-B | June 2003

Introduction

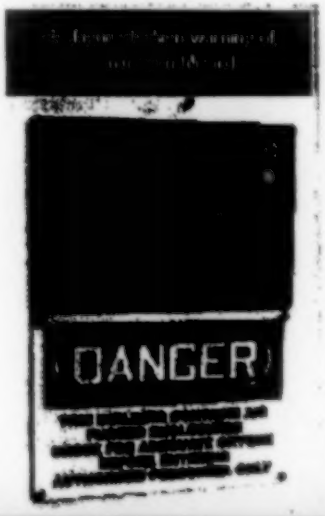
Every year people are killed by breathing "air" that contains too little oxygen. Because 78 percent of the air we breathe is nitrogen gas, many people assume that nitrogen is not harmful. However, *nitrogen is safe to breathe only when mixed with the appropriate amount of oxygen.*

These two gases cannot be detected by the sense of smell. A nitrogen-enriched environment, which depletes oxygen, can be detected only with special instruments. If the concentration of nitrogen is too high (and oxygen too low), the body becomes oxygen deprived and asphyxiation occurs.

This Safety Bulletin is published to bring additional attention to the continuing hazards of nitrogen asphyxiation.[1]

- Nitrogen is widely used commercially. It is often used to keep material free of contaminants (such as oxygen) that may corrode equipment, present a fire hazard, or be toxic.
- Nitrogen asphyxiation hazards in industry resulted in 80 deaths from 1992 to 2002. These incidents occurred in a variety of facilities, including industrial plants, laboratories, and medical facilities; almost half involved contractors.
- Good practices and awareness of hazards minimize the risk of nitrogen asphyxiation (Figure 1).

Many incidents reviewed by CSB were caused by inadequate knowledge of the hazard or inadvertent use of nitrogen rather than breathing-air delivery systems.



This bulletin focuses only on the hazard of asphyxiation, though nitrogen also presents cryogenic and high-pressure hazards.

Commercial Uses of Nitrogen

One of the most important commercial uses of nitrogen is as an inerting agent to improve safety. Nitrogen is inert under most conditions (i.e., it does not react with or affect other material).

It is often used to keep material free of contaminants, including oxygen—which can corrode equipment or present a fire and explosion hazard when in contact with flammable liquids or combustible solids. In such cases, a flow of nitrogen is maintained in a vessel to keep oxygen out. Nitrogen is also used to purge air from equipment prior to introducing material, or to purge flammable or toxic material prior to opening equipment for maintenance.

In industrial and commercial settings where a nitrogen-enriched environment may present a hazard, such as when using supplied air or working in or

[1] In 1998, the U.S. Chemical Safety Board (CSB) investigated a nitrogen asphyxiation incident that occurred in Hahnville, Louisiana. As part of that investigation, CSB reviewed the

precautions must be taken to ensure that sufficient oxygen is provided to personnel.

* Nitrogen is safe to breathe only when mixed with the appropriate amount of oxygen.

Effects of Oxygen-Deficient Atmosphere

Nitrogen is not a "poison" in the traditional sense. It presents a hazard when it displaces oxygen, making the atmosphere hazardous to humans. Breathing an oxygen-deficient atmosphere can have serious and immediate effects, including unconsciousness after only one or two breaths. The exposed person has no warning and cannot sense that the oxygen level is too low.

The Occupational Safety and Health Administration (OSHA) requires employers to maintain workplace oxygen at levels between 19.5 and 23.5 percent. As shown in the table on page 3, the human body is adversely affected by lower concentrations.

As the oxygen concentration falls below 16 percent, the brain sends commands to the breathing control center, causing the victim to breathe faster and deeper. As the oxygen level continues to decrease, full recovery is less certain. An atmosphere of only 4 to 6 percent oxygen causes the victim to fall into a coma in less than 40 seconds. Oxygen must be administered within minutes to offer a chance of survival. Even when a victim is rescued and resuscitated, he or she risks cardiac arrest.

* In industrial and commercial settings where a nitrogen-enriched environment may present a hazard, . . . precautions must be taken to ensure that there is sufficient oxygen in the atmosphere.

* Nitrogen . . . presents a hazard when it displaces oxygen.

Statistics on Nitrogen Asphyxiation

From reported data for the United States, CSB identified 85 nitrogen asphyxiation incidents that occurred in the workplace between 1992 and 2002. In these incidents, 80 people were killed and 50 were injured.[1]

Profile of Affected Industries and Activities

Of the 85 incidents reported, 62 percent occurred in chemical plants and refineries, food processing and storage facilities, metal and manufacturing operations, and other industrial, maritime, and manufacturing sites, including nuclear plants.

Approximately 13 percent of the incidents involved maintenance

[1] Data sources for the CSB review include regulatory agencies, media reports, technical publications, and contacts with safety personnel; however, only those incidents that were reported and accessible are represented. Although the summary data reported above are not all-inclusive, the numbers clearly indicate that nitrogen asphyxiation presents a serious hazard in the workplace. Statistical analysis is based

CSB Safety Bulletins offer advisory information on good practices for managing chemical process hazards. Case studies provide supporting information. Safety Bulletins differ from CSB Investigation Reports in that they do not comprehensively review all the causes of an incident.

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Effects of Oxygen Deficiency on the Human Body

Atmospheric Oxygen Concentration (%)	Possible Results
20.9	Normal
19.0	Some unnoticeable adverse physiological effects
16.0	Increased pulse and breathing rate, impaired thinking and attention, reduced coordination
14.0	Abnormal fatigue upon exertion; emotional upset; faulty coordination, poor judgment
12.5	Very poor judgment and coordination, impaired respiration that may cause permanent heart damage, nausea, and vomiting
<10	Inability to move, loss of consciousness, convulsions, death

SOURCE: Compressed Gas Association, 2001.

* CSB identified 85 nitrogen asphyxiation incidents that occurred in the workplace between 1992 and 2002 . . . 80 people were killed and 50 were injured.

activities, such as railcar and tank truck cleaning, painting, maintenance, and repair. These incidents are categorized as "maintenance" because incident reports do not include enough information on the type of industrial setting; they could have occurred at manufacturing sites, which would increase the 62 percent estimate above.

Likewise, trenches and manholes—not specifically identified as being in manufacturing facilities—account for about 14 percent of the incidents. The remainder of the incidents occurred in laboratories and miscellaneous industries, such as medical and transportation.

The data show that employees and contractors alike are victims of asphyxiation. Of the 85 incidents reviewed, 42 involved contractors, including construction workers;

* Of the 85 incidents reviewed, 42 involved contractors, including construction workers; these 42 incidents account for over 60 percent of the fatalities.

* . . . 130 workplace fatalities and injuries occurred from breathing nitrogen-enriched air. Over 60 percent of these victims were working in or next to a confined space.

these 42 incidents account for over 60 percent of the fatalities.

Causal Information

From the CSB data, a combined total of 130 workplace fatalities and injuries occurred from breathing nitrogen-enriched air. Over 60 percent of these victims were working in or next to a confined space.[3,4]

One characteristic of a confined space is its capability to contain an atmosphere that may be totally different from outside air. Confined spaces in manufacturing sites typically include equipment such as reactors, vessels, tanks, and boilers. Other such spaces are railcars, trenches, and areas accessible by manholes.

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[3] "Next to a confined space" means that a person's breathing zone is affected by the atmosphere emanating from the space. The person may be standing in the immediate area but not actually in the space.

[4] According to OSHA, a confined space can be entered to perform work, has limited means of egress, and is not designed for continuous employee occupancy. A "permit-required confined space" includes a space that contains or has the potential to contain a serious safety or health hazard,

Failure to Detect Oxygen-Deficient Atmosphere

Failure to detect an oxygen-deficient (nitrogen-enriched) atmosphere was a significant factor in several incidents.

In the data evaluated for this study, 67 of the 85 incidents involved circumstances where personnel were in or around a confined area—such as a railcar, room, process vessel, or tank (Figure 2)—and nitrogen was initially present in high levels or later collected in the area. These incidents accounted for 62 fatalities and 33 injuries. In each of the 67 incidents, personnel failed to detect elevated levels of nitrogen and take appropriate precautions.

When fatalities and injuries occurred in "open areas" (including areas with ventilation, laboratories, buildings, and outside in the vicinity of equipment), the hazard of asphyxiation was not expected and personnel were typically caught off guard. In some cases, personnel unknowingly created a nitrogen-enriched atmosphere by mistakenly using nitrogen flush equipment prior to entry. In either situation, inadequate knowledge of the hazard and failure to detect additional nitrogen resulted in a fatal concentration of gas.

* When fatalities and injuries occurred in "open areas" . . . the hazard of asphyxiation was not expected and personnel were typically caught off guard.

Mix-Up of Nitrogen and Breathing Air

Confusing nitrogen gas with air and problems with breathing-air delivery systems accounted for 12 of the 85 incidents, and approximately 20 percent of fatalities.

The data provide examples of workers inadvertently using nitrogen instead of air because of interchangeable couplings on lines and poor or nonexistent labeling.

In one incident, a worker mistakenly used nitrogen instead of air to purge a confined space. An inert atmosphere was unexpected and undetected. One worker was killed, and a colleague also died while attempting rescue. In another case, workers inadvertently connected the hose for their breathing-air respirator to a pure nitrogen line.

* In one incident, a worker mistakenly used nitrogen instead of air to purge a confined space . . . In another case, workers inadvertently connected the hose for their breathing-air respirator to a pure nitrogen line.

Fatalities and Injuries During Attempted Rescue

One of the most difficult issues concerning hazardous atmosphere emergencies is the human instinct to aid someone in distress. Approximately 10 percent of fatalities from the CSB data were due to attempts to rescue injured persons in confined spaces.

* Approximately 10 percent of fatalities from the CSB data were due to attempts to rescue injured persons in confined spaces.

Asphyxiation Hazards Outside Industry and Effect on General Public

Asphyxiation hazards may also be present outside industry, especially among people who use breathing air, such as firefighters, divers, and medical patients. Statistics on these types of incidents are difficult to collect and are not included in this bulletin, though one such case is summarized below.

Selected Case Studies

Failure to Recognize Asphyxiation Hazards Near Confined Spaces

Employee Dies After Partially Entering a Nitrogen-Purged Tank

Two coworkers and the victim were cleaning filters in a hydrogen purifying tank. The tank was partly purged with nitrogen to remove internal dust particles.

The victim used a lift to access the external area of the upper tank, which was fitted with a manway. As he leaned into the tank opening, his coworkers noticed that he was not responding to their communication. They found the victim unconscious, and he later died as a result of oxygen deficiency.

Employee Overcome While Testing Atmosphere

An operator was conducting a flammable gas test on a tower feedline that discharged into a low-pressure flare gas header. The test was required for a hot work permit to take flash photos.

The chief operator issued a work permit that required a supplied-air respirator. Two contractor pipefitters wore respirators and removed the safety valve. The operator, however, wore no respiratory protection. After climbing the scaffold, he was overcome by nitrogen gas from the open flare line before he could complete atmospheric sampling.

The operator backed away, turned, and slumped to his knees. He was disoriented and briefly lost consciousness. An investigation concluded that the incident was due to elevated levels of nitrogen gas that had inadvertently entered the flare system.

Inadequate Monitoring of Atmosphere

Contractor Asphyxiated Inside Tank Car

White mineral oil in a tank car at an oil refinery was offloaded by injecting nitrogen gas into the car. An employee of a railcar cleaning company was asphyxiated while cleaning the nitrogen-filled tank car.

Corrupt Breathing Air Supply

Two Laborers/Painting Contractors Asphyxiated

Two painting contractors were abrasive-blasting tubes inside a boiler at a chemical plant. They each wore supplied-air respirators connected to a 12-pack cluster of compressed air cylinders. Another subcontractor monitored the work outside the confined space.

Work proceeded normally throughout the night shift; however, at 3:00 am, the attendant got no response after repeatedly sounding the air horn. When another contractor employee was sent into the boiler to assess the situation, he found the two men lying on opposite ends of the scaffolding.

When the plant health, safety, and environmental department tested the compressed air 12-pack, they found that it contained less than 5 percent oxygen. The "air" had been manufactured with too low a

concentration of oxygen. (Note: This fatal incident prompted OSHA to issue a safety alert on the batch of breathing air.)

Mix-Ups Between Nitrogen and Air

Three Employees Asphyxiated in Coating Tank

The atmosphere inside a coating tank was tested and ventilated the day before work was to be performed. On the following day, a contractor entered the tank to clean it and collapsed. Two plant employees entered to attempt rescue, but they were also overcome.

The tank had been ventilated with what was thought to be compressed air but was actually nitrogen. The atmosphere was not tested prior to beginning work. All three men were asphyxiated.

Employee Killed by Overexposure to Pure Nitrogen

A contractor planned to use an air-powered hammer to chip residue from a furnace in an aluminum foundry. He wore an airline respirator. Of two compressed gas lines with fittings, one was labeled "natural gas" and the other had an old paper tag attached with "air" handwritten on it. However, this line actually contained pure nitrogen.

A splitter diverted one part of the gas stream to the air hammer and the other part to the airline respirator. Once the respirator was in place, the worker breathed pure nitrogen and was asphyxiated.

Four Killed and Six Injured in Nursing Home

A nursing home routinely ordered large pure oxygen compressed gas cylinders for residents with respiratory system diseases. The supplier mistakenly delivered one cylinder of pure nitrogen with three cylinders of oxygen; a nursing home maintenance employee mistakenly accepted the nitrogen tank.

Another maintenance employee took this cylinder, which had a nitrogen label partially covering an oxygen label, to connect it to the oxygen supply system. The tank was fitted with nitrogen-compatible couplings. The employee removed a fitting from an empty oxygen cylinder and used it as an adapter to connect the nitrogen tank to the oxygen system. Four deaths and six injuries occurred as a result of pure nitrogen being delivered to the patients.

Good Practices for Safe Handling of Nitrogen

Implement Warning Systems and Continuous Atmospheric Monitoring of Enclosures

The atmosphere in a confined space or small enclosed area may be unfit for breathing prior to entry, or it may change over time, depending on the type of equipment or work being performed. Recognizing this hazard, good practice calls for continuous monitoring of a confined space to detect oxygen-deficient, toxic, or explosive atmospheres. The entire confined space should be monitored—not just the entry portal.

* The atmosphere in a confined space or small enclosed area may be unfit for breathing prior to entry, or it may change over time . . .

Warning and protection systems include flashing lights, audible alarms, and auto-locking entryways to prevent access. Such devices, if properly installed and

maintained, warn workers of hazardous atmospheres. Personal monitors can measure oxygen concentration and give an audible or vibration alarm for low oxygen concentrations.

* Good practice calls for continuous monitoring of a confined space to detect oxygen-deficient, toxic, or explosive atmospheres.

Ensure Ventilation With Fresh Air

Because the atmosphere of a confined space or small/enclosed area often changes during the course of work, it is essential to maintain continuous forced draft fresh-air ventilation before the job begins through to completion. Areas with the potential to contain elevated levels of nitrogen gas should be continuously ventilated prior to and during the course of the job.

Ventilation is also required in rooms and chambers into which nitrogen may leak or vent. In a few of the study cases, people who were simply working close to the nitrogen-containing confined space, room, or enclosure were asphyxiated.

Systems must be in place to properly design, evaluate, and maintain ventilation systems. A warning system will alert workers of a dangerous atmosphere. Personnel should be trained on how to properly respond and evacuate in the event of failure of the system.

Implement System for Safe Rescue of Workers

Rescue may be necessary in the event of continuous monitoring, ventilation failure, or another emergency condition. The ability to immediately retrieve immobilized workers is a critical component of confined space entry preplanning.

* It is essential to maintain continuous forced draft fresh-air ventilation before the job begins through to completion.

One method is to attach a body harness and lifeline to personnel entering confined areas. This procedure also benefits potential rescuers because they do not have to enter the confined area to retrieve the victim. However, when a worker enters a pipeline, some furnaces, ducts, or other narrow-diameter confined spaces, pulling on a line attached to a body harness may cause the person to bunch up and become stuck inside.

Depending on the situation, wristlets or anklets attached to a lifeline and a retrieval mechanism allow the confined space attendant to pull the person out by the arms or legs. The attendant and rescue personnel should be available at all times. Rescuers must have an effective system to communicate with personnel inside enclosures. No one should enter a dangerous atmosphere without proper personal protective equipment.

The last measure of defense requires personnel to actually enter the confined area to retrieve the victim. This approach should be used only when personnel are appropriately trained, have donned rescue equipment, and have dependable breathing air.

Approximately 10 percent of fatalities from the survey data occurred to personnel attempting rescue. These deaths could have been prevented if a reliable retrieval system was in place. Such a system would also prevent many entry worker fatalities because it provides for quickly removing the worker from a dangerous atmosphere to a safe one.

Ensure Uninterrupted Flow and Integrity of Breathing Air

Breathing air must be supplied when workers enter environments where oxygen is or may become deficient. Workers may use either a self-contained breathing apparatus (SCBA) or an airline respirator, which consists of a long hose connecting a breathing air supply to the respirator or hood.

Because a worker using an airline respirator does not control the

* Breathing air must be supplied when workers enter environments where oxygen is or may become deficient.

source of supply, air may suddenly or inadvertently be interrupted. For example, a power failure may stop an air compressor, the air supply may simply run out, or the supply hose may become twisted or obstructed (e.g., by a vehicle). When supplied air is used, facility management systems must protect against interruption of airflow and provide alternate sources of power for the compressors.

A comprehensive management system includes the following:

- Continuous monitoring of air supply.
- Routine inspection and replacement of supplied-air hoses.
- Restriction of vehicular traffic in the area of supply hoses.

When using supplied air, a worker should carry a small backup cylinder (escape pack)—attached to a different supplied-air system—with enough breathing air to last 5 to 10 minutes.

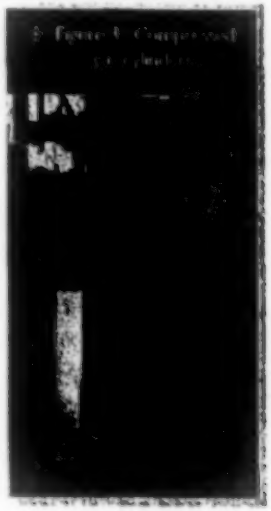
Breathing air is manufactured either by purifying and compressing air or by mixing nitrogen and oxygen to the appropriate ratio. A breathing-air compressor and its hoses should be specifically manufactured for and dedicated to breathing-air systems. The compressor should have a moisture trap, an oil trap, and a carbon monoxide sensor and alarm. When breathing air is manufactured by mixing nitrogen and oxygen, the pressure of the cylinders during filling must be known to ensure that the correct amounts are mixed. The final product must be tested to ensure its integrity.

Prevent Inadvertent Mix-Up of Nitrogen and Breathing Air

To prevent interchanging compressed nitrogen with compressed industrial grade air or compressed breathing-quality air, specific fittings should be used for each cylinder. Cylinders for nitrogen, industrial grade air, and breathing-quality air have distinct, incompatible fittings that cannot be cross-connected.

* Personnel should understand that the fittings are *intended* to be incompatible to ensure safety.

Personnel should understand that the fittings are *intended* to be incompatible to ensure safety. Cylinders should be clearly labeled; typical cylinders are shown in Figure 3. Labels on piping systems, compressors, and



fittings are additional reminders of which gas is contained inside. Color coding also helps to identify systems.

Develop and Implement Comprehensive Training Programs

The good practices for safe handling of nitrogen, described above, are effective only if personnel are trained on the importance of the following:

- Use of ventilation systems, retrieval systems, and atmospheric monitoring equipment—both how to use them and how to determine when they are not working properly.
- Dangers of nitrogen-enriched atmospheres and the systems to

prevent interchanging breathing air and nitrogen.

- Implementing good hazard communication, which includes safe handling of air and nitrogen delivery systems.
- Mandatory safety practices and procedures for entry into confined spaces, such as permits, providing an attendant, monitoring, ventilating, rescue, and contractor oversight.
- Precautions when working around equipment that may contain elevated levels of nitrogen.
- The reason for special fittings on compressed gas cylinders.
- Proper use of air supply equipment.

Training should cover new and revised procedures for confined space entry, and establish measurements for employee proficiency. Contractors as well as employees should be trained.

Contractors as well as employees should be trained.

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Salus Populi Est Lex Suprema
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IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF MISSOURI

Case No. 4:14-CV-8000-BP

RUSSELL BUCKLEW,

Plaintiff,

v.

GEORGE LOMBARDI, *et al.*,

Defendants.

Hon. Beth Phillips

MOTION FOR LEAVE TO FILE SUPPLEMENT TO PLAINTIFF'S SUGGESTIONS IN OPPOSITION TO DEFENDANTS' MOTION FOR SUMMARY JUDGMENT

Plaintiff Russell Bucklew, by and through counsel Cheryl A. Pilate, hereby seeks leave to file a two-page supplement to Plaintiff's Suggestions in Opposition to Defendants' Motion for Summary Judgment. The supplement must be filed separately because it concerns preservation of Plaintiff's objection regarding discovery of the three depositions of M3, which were taken during prior litigation and which are protected from disclosure by protective orders. Plaintiff's co-counsel at the Sidley firm have not had access to those depositions and, under the terms of the protective orders, may not view their contents.

The proposed supplemental pleading is brief, just two pages, and adheres to the terms of the protective orders by not including material from any of M3's depositions. Given the subject matter of portions of the summary judgment briefing, Plaintiff believes it is prudent to preserve his objection and assert this ground as a further basis for denying summary judgment. The proposed supplemental pleading is attached as Exhibit 1.

Wherefore, for all of the reasons stated above, Plaintiff respectfully requests that he be granted leave to file the attached supplemental pleading.

Respectfully submitted,

/s/ Cheryl A. Pilate
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IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF MISSOURI

Case No. 4:14-CV-8000-BP

RUSSELL BUCKLEW,

Plaintiff,

v.

GEORGE LOMBARDI, *et al.*,

Defendants.

Hon. Beth Phillips

SUPPLEMENT TO PLAINTIFF'S SUGGESTIONS IN OPPOSITION TO DEFENDANTS' MOTION FOR SUMMARY JUDGMENT

Plaintiff Russell Bucklew, by and through counsel Cheryl A. Pilate, files this Supplement to his Suggestions in Opposition to Defendants' Motion for Summary Judgment for the purpose of stating an additional ground to deny Defendant's [sic] Motion and to preserve his objection to this Court's denial of Plaintiff's request for discovery of the prior depositions of the execution team doctor, M3. Three depositions of M3 were obtained during the litigation of two prior lethal injection lawsuits, *Ringo v. Lombardi*, Case No. 09-4095-BP (W.D. Mo.) and *Zink v. Lombardi*, Case No. 12-4209-BP (W.D. Mo.). This Court denied Plaintiff's discovery request regarding the M3 depositions in its Order granting in part and denying in part Plaintiff's Motion to Compel. (Doc. 183, Doc. 169). This Court

stated that such discovery was neither necessary nor appropriate. Mr. Bucklew respectfully disagrees with the Court's assessment, as testimony in the M3 depositions relates to numerous issues raised in the summary judgment briefing.

Mr. Bucklew was a plaintiff in the *Ringo* and *Zink* cases, and undersigned counsel was his attorney. The deposition of M3 in *Ringo* was conducted by telephone on September 24, 2010, and the two depositions of M3 in *Zink* were similarly conducted by telephone, on July 11, 2013, and January 16, 2014. The deposition transcripts were deemed "confidential" and placed under the protective orders in those cases, but were otherwise fully available to be used by counsel in representing their clients in *Ringo* and *Zink*.

Throughout the present litigation, undersigned counsel has been in possession of all three deposition transcripts of M3, but has been unable to use them on behalf of her client because of the protective orders entered in the *Ringo* and *Zink* cases. The district court's Order in this case denied access to all of the M3 depositions, and undersigned counsel has therefore been unable to share them with her co-counsel.

Undersigned counsel Cheryl Pilate has prepared the present pleading without the involvement of co-counsel from the Sidley firm. Counsel believes that the M3 deposition transcripts would provide relevant, admissible evidence bearing on numerous allegedly undisputed facts raised by defendants, as well as providing additional support for facts asserted by Plaintiff. In addition, testimony from M3's depositions is directly relevant to arguments raised throughout Section IV of Plaintiff's Suggestions in Opposition to Defendants' Motion for Summary Judgment. Throughout M3's depositions, he testified on a variety of subjects relating to the manner

of carrying out executions, the potential risks involved, and specific relevant aspects of his background.

Mr. Bucklew respectfully asserts that he has been greatly prejudiced in preparing his response to Defendant's [sic] Motion for Summary Judgment by the Court's denial of access to the transcripts of M3's depositions. For this reason, as well as those stated in his Suggestions in Opposition, summary judgment should be denied.

Respectfully submitted,

/s/ Cheryl A. Pilate
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IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF MISSOURI
WESTERN DIVISION

Case No. 14-8000-CV-W-BP

RUSSELL BUCKLEW,

Plaintiff,

v.

GEORGE A. LOMBARDI, *et al.*,

Defendants.

ORDER DENYING MOTION FOR LEAVE
TO FILE SUPPLEMENTAL SUGGESTIONS
IN OPPOSITION

This is a civil rights lawsuit, brought by a condemned inmate. Plaintiff contends that the State's method of execution as applied to him violates the Eighth Amendment. Defendants filed a Motion for Summary Judgment. Plaintiff will be filing a response; Plaintiff seeks leave, (Doc. 193), to also file "Supplemental Suggestions in Opposition" in order to preserve objections to the Court's limits on discovery. Plaintiff's motion is DENIED because his objections are preserved without the filing of the Supplemental Suggestions and there is no need to risk confusing the Record in this manner.

IT IS SO ORDERED.

/s/ Beth Phillips
BETH PHILLIPS, JUDGE
UNITED STATES DISTRICT COURT

DATE: May 16, 2017

IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF MISSOURI
WESTERN DIVISION

Case No. 14-8000-CV-W-BP

RUSSELL BUCKLEW,

Plaintiff,

v.

GEORGE A. LOMBARDI, *et al.*,

Defendants.

ORDER AND OPINION GRANTING DEFENDANTS' MOTION FOR SUMMARY JUDGMENT

Pending is Defendants' Motion for Summary Judgment, which seeks summary judgment on the Eighth Amendment Claim presented in Count I[1] of the Fourth Amended Complaint. Defendants contend that the undisputed facts demonstrate (1) they are entitled to judgment as a matter of law on the merits, (2) Plaintiff's claim is barred by the statute of limitations, and (3) Plaintiff's claim is barred by principles of claim preclusion.[2] As discussed below, the Court

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[1] Counts II and III were previously dismissed by the Court. (Doc. 63.)

[2] Defendants also contend the Court should dismiss the case because it lacks jurisdiction. (Doc. 182, pp. 9-10.) The argument has been presented before, and the Court rejects it for the reasons previously stated. (*See* Doc. 101.) To the extent that Defendants' argument has shifted to contend that the Court lacks jurisdiction because the Record now proves that Plaintiff will not suffer a

agrees that the undisputed facts in the Record establish that Plaintiff cannot prevail on his Eighth Amendment claim, and for that reason the motion, (Doc. 181), is GRANTED.[3]

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redressable injury, the Court rejects this argument as well. Defendants' argument relates to Plaintiff's ability to prove his claim, not to the Court's jurisdiction, and crediting Defendants' argument would essentially require dismissal (without prejudice) for lack of jurisdiction anytime a plaintiff fails to prove his claim. It "is important not to conflate the injury and traceability requirements of a standing analysis with the plaintiff's ultimate burden of proof as to the issues of damages and causation at a trial on the merits," *Brown v. Medtronic, Inc.*, 628 F.3d 451, 457 (8th Cir. 2010), and this observation applies equally when the merits are considered at the summary judgment stage.

[3] The Court does not address the statute of limitations or claim preclusion arguments. These issues were not addressed before the first appeal, and the Court of Appeals declined to address them in the first instance. *Bucklew v. Lombardi*, 783 F.3d 1120, 1122 n.1, 1128-29 (8th Cir. 2015) (en banc). Following remand Defendants sought dismissal on these grounds, but the Court denied the request without prejudice because the Record was not yet sufficiently developed and various legal complexities (some of which had been identified by the Court of Appeals, 783 F.3d at 1122 n.1) had not been addressed. The Court's Order explained some of the difficulties involved in determining whether these doctrines apply. (Doc. 63, pp. 9-13.) The Supreme Court has since discussed the doctrine of claim preclusion when an as-applied challenge follows an unsuccessful facial challenge. *Whole Woman's Health v. Helerstedt*, 136 S. Ct. 2292, 2305 (2016). In reasserting these arguments Defendants have not addressed any of these factual or legal issues; they have merely cited general principles without explaining how they apply in this unique situation, and cited to the same facts that were earlier deemed to be incomplete and therefore insufficient. Given the Court's ruling on the merits there is no need to further delay resolution of this case to provide Defendants another opportunity to address these issues.

I. BACKGROUND

A. Procedural History

Plaintiff Russell Bucklew was convicted in state court of first degree murder, kidnapping, burglary, forcible rape, and armed criminal action. He was sentenced to death for the murder and various terms of years on the other crimes. *State v. Bucklew,* 973 S.W.2d 83 (Mo. 1998) (en banc), *cert. denied,* 525 U.S. 1082 (1999). His requests for postconviction relief and habeas relief were denied. *Bucklew v. State,* 38 S.W.3d 395 (Mo.) (en banc), *cert. denied,* 534 U.S. 964 (2001); *Bucklew v. Luebbers,* 436 F.3d 1010 (8th Cir.), *cert. denied,* 549 U.S. 1079 (2006).

Plaintiff filed this suit in May 2014. The Court dismissed the case, but the dismissal was reversed and the case was remanded. *Bucklew v. Lombardi,* 783 F.3d 1120, 1128 (8th Cir. 2015) (en banc). After the Mandate was issued, Bucklew filed a series of Amended Complaints. The latest – the Fourth Amended Complaint – is the operative pleading, and as noted earlier Count I is the only remaining count. Count I asserts an Eighth Amendment challenge, contending that Missouri's method of execution is unconstitutional as applied to Plaintiff because of his unique medical condition.

B. Facts

Plaintiff suffers from a congenital condition known as cavernous hemangioma. The disease causes clumps of weak, malformed blood vessels and tumors to grow throughout his body, including his head, face, neck and throat. The tumors are very susceptible to rupture. The disease also affects Plaintiff's circulatory system, resulting in (among other effects) compromised peripheral veins in his hands and arms. The

tumors in his throat also make it difficult for him to breathe, and that difficulty is exacerbated when he is in a supine position. Plaintiff's condition is incurable, and surgery to alleviate the tumors is not possible due to the risk of severe bleeding.

Missouri's death penalty protocol has not been succinctly described, but the parties implicitly agree (and the Record demonstrates, (*e.g.*, Doc. 182-1, pp. 135-36; Doc. 197-1; Doc. 182-7, pp. 7-9)),[4] that it involves the intravenous administration of pentobarbital in dosages sufficient to cause unconsciousness and eventually death. In terms of the IV's placement, the protocol provides as follows:

> Medical personnel shall determine the most appropriate locations for intravenous (IV) lines. Both a primary IV line and a secondary IV line shall be inserted unless the prisoner's physical condition makes it unduly difficult to insert more than one IV. Medical personnel may insert the primary IV line as a peripheral line or a central venous line (e.g., femoral, jugular, or subclavian) provided they have appropriate training, education and experience for that procedure. The secondary IV line is a peripheral line.

(Doc. 182-1, p. 1.) The parties seem to agree that because of the cavernous hemangioma Plaintiff's peripheral veins cannot be used in this process because of the risk that they will rupture (assuming that an IV could be placed in them in the first place). However, the portion of the protocol quoted above confirms that a central line in the femoral vein may be used instead of inserting an IV in the peripheral veins.

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[4] All page numbers are those generated by the Court's CM/ECF system.

With respect to the risk of Plaintiff's femoral vein rupturing, Plaintiff's expert, (Dr. Joel Zivot), testified that the femoral vein is large and capable of "tak[ing] a fair amount of fluid" when the central line is properly placed, and the risk of that vein rupturing is "unlikely." (Doc. 182-1, p. 26.) Dr. Zivot also denied having any reason to believe that Plaintiff's medical condition made his femoral vein more susceptible to rupture than might otherwise be expected, and confirmed that his testimony about the risk of Plaintiff's veins rupturing was limited to Plaintiff's peripheral veins. (Doc. 182-1, pp. 70-71, 77-78.) Plaintiff also concedes that there is no evidence in the Record establishing that Plaintiff has any problem with his veins *other* than his peripheral veins, including his femoral vein. (Doc. 197, p. 9.) Finally, the Record confirms that Plaintiff's medical condition will not affect the flow of chemicals in his bloodstream once they are introduced through the femoral vein, or otherwise affect his expected response to the pentobarbital. (*E.g.*, Doc. 182-1, pp. 65-66, 213-14, 219.)

An execution is typically conducted with the prisoner lying on his back. The procedure for inserting a central line is also usually performed with the person in the supine position. The Record establishes that Plaintiff has difficulty breathing while in that position because the tumors can cause choking or an inability to breathe. Sometimes the tumors bleed, thereby exacerbating the sensation. When required to be on his back, Plaintiff can "adjust" his breathing so that he can remain in that position; for instance, Plaintiff was able to lie on his back for approximately one hour while undergoing an MRI. However, there are factual disputes as to (1) Plaintiff's ability to adjust his breathing once the pentobarbital begins to take effect, (Doc. 181-1, pp. 81-82), and (2) how quickly the

pentobarbital will deprive Plaintiff of the ability to sense that he is choking or unable to breathe. On the latter point Dr. Zivot testified that it could be fifty-two to 240 seconds before the pentobarbital induces a state in which Plaintiff could no longer sense that he is choking or unable to breathe. (*E.g.*, Doc. 182-1, pp. 84-88.) Defendants point out that their expert, Dr. Joseph Antognini, opined that Plaintiff would be unconscious within twenty to thirty seconds and at that point would be incapable of experiencing pain. (Doc. 182-1, pp. 198-99; Doc. 182-5, pp. 60-62.) However, the Court cannot resolve this dispute between the experts on summary judgment.

Defendants also invite the Court to analyze the study Dr. Zivot relied upon to find that fifty-two seconds of awareness is the worst case scenario because that is when brain death occurs. (Doc. 200, p. 15.) Dr. Zivot addressed this issue in his deposition, explaining that the study's use of the term "brain death" was a "misnomer" because the study marked "brain death" before measurable brain activity terminated; he then indicated that pain might be felt until measurable brain activity ceases. (Doc. 182-1, pp. 83-86.)[5] The Court also cannot resolve this factual dispute on summary judgment. Therefore, construing the Record in Plaintiff's favor reveals that it could be fifty-two to 240 seconds before the pentobarbital induces a

[5] This may be a generous interpretation of Dr. Zivot's testimony. However, (1) the Record must be construed in the light most favorable to Plaintiff and (2) the Court is not required to resolve the elements of Plaintiff's claim in any particular order. Therefore, the Court deems it appropriate to adopt this interpretation of Dr. Zivot's testimony in order to frame the discussion about Plaintiff's proffered alternative method of execution.

state in which Plaintiff could no longer sense that he is choking or unable to breathe.[6]

II. DISCUSSION

A moving party is entitled to summary judgment on a claim only upon a showing that "there is no genuine issue of material fact and that the moving party is entitled to a judgment as a matter of law." *See generally Williams v. City of St. Louis*, 783 F.2d 114, 115 (8th Cir. 1986). "[W]hile the materiality determination rests on the substantive law, it is the substantive law's identification of which facts are critical and which facts are irrelevant that governs." *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 248 (1986). Thus, "[o]nly disputes over facts that might affect the outcome of the suit under the governing law will properly preclude the entry of summary judgment." *Wierman v. Casey's Gen. Stores*, 638 F.3d 984, 993 (8th Cir. 2011) (quotation omitted). In applying this standard, the Court must view the evidence in the light most favorable to the non-moving party, giving that party the benefit of all inferences that may be reasonably drawn from the evidence. *Matsushita Elec. Indus. Co. v. Zenith Radio Corp.*, 475 U.S. 574, 587-88 (1986); *Tyler v. Harper*, 744 F.2d 653, 655 (8th Cir. 1984), *cert. denied*, 470 U.S. 1057 (1985). A party opposing a motion for summary judgment may not simply deny the allegations, but must point to evidence in

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[6] Defendants also suggest that the execution could be performed with Plaintiff in a different position, but there is no evidence whether this has an effect on the procedure as a whole or the procedure for inserting a central line specifically. In light of the Record's silence on these matters, Defendants have not provided the Court with a basis for granting summary judgment based on the possibility of performing the execution with Plaintiff in a sitting (or other) position.

the Record demonstrating the existence of a factual dispute. Fed. R. Civ. P. 56(c)(1); *Conseco Life Ins. Co. v. Williams*, 620 F.3d 902, 909-10 (8th Cir. 2010).

In *Glossip v. Gross*, the Supreme Court determined "what a prisoner must establish to succeed on an Eighth Amendment method-of-execution claim." 135 S. Ct. 2726, 2737 (2015). "[D]ecisions in this area have been animated in part by the recognition that because it is settled that capital punishment is constitutional, it necessarily follows that there must be a constitutional means of carrying it out." *Id.* at 2732-33. Moreover, "because some risk of pain is inherent in any method of execution, we have held that the Constitution does not require the avoidance of all risk of pain." *Id.* at 2733. In light of these observations, a prisoner alleging that a particular form of execution is cruel and unusual within the meaning of the Eighth Amendment must first establish that the method to be utilized "presents a risk that is sure or very likely to cause serious illness and needless suffering, and give rise to sufficiently imminent dangers." *Id.* at 2737 (quotations and emphasis deleted). The prisoner must then "identify a known and available alternative method of execution that entails a lesser risk of pain, a requirement of all Eighth Amendment method-of-execution claims." *Id.* at 2731. The alternative must be "feasible, readily implemented, and in fact significantly reduce[ ] [the] substantial risk of severe pain." *Id.* at 2737; *see also Bucklew*, 783 F.3d at 1128. The Court has discretion to decide the order in which it will address these two components of Plaintiff's claim. *Bucklew*, 783 F.3d at 1128.

A. Risk of Serious Illness or Needless Suffering

Defendants contend that the uncontroverted facts demonstrate that Plaintiff is not sure or likely to

experience a serious injury or needless suffering. Plaintiff contends that he has demonstrated a serious risk that he will experience needless pain and suffering because (1) the weakness in his peripheral veins precludes using them to administer the pentobarbital, and (2) he will choke or otherwise be unable to breathe for an extended period of time before the pentobarbital takes full effect. The Court concludes that the Record establishes that (1) the use of Plaintiff's femoral vein does not present any risk of serious illness or needless suffering, and (2) the Record does not permit a conclusive determination regarding the risk that Plaintiff will choke and be unable to breathe for a period of time that would violate the Eighth Amendment.

1. Use of Plaintiff's Femoral Vein

As discussed in Part I.B, there is an apparent consensus that an IV cannot be safely inserted in Plaintiff's peripheral veins. However, the execution protocol allows a central line to be inserted in Plaintiff's femoral vein, and the Record establishes that this can be done without the risk of complications attributable to Plaintiff's congenital condition. The Court also notes that Plaintiff's legal argument does not discuss Defendant's evidence that his femoral vein can be used to administer the execution drugs. (Doc. 197, pp. 34-43.) Plaintiff discusses the use of his femoral vein only in the portion of his Opposition that addresses the facts in the Record, and even in that context he does not present any legal arguments based on those facts. Nonetheless, the Court will briefly discuss these factual issues.

Generally speaking, Plaintiff addresses the potential difficulty in locating the femoral vein and the fact that medical personnel might require multiple

attempts to locate it.[7] This, he posits, will increase his stress, thereby increasing his breathing rate and making it more likely that he will choke. Plaintiff also suggests that if the procedure is not performed properly the drugs might be injected in an artery instead of the vein. (Doc. 197, pp. 18-20.) However, Plaintiff does not quantify these risks, nor (as stated) does he explain how these facts independently establish that the current protocol presents a risk of serious illness or needless suffering. The possibility that Plaintiff might experience increased stress (or, more precisely, more stress than the situation might otherwise produce) is particularly speculative, as are the effects of that extra stress. Moreover, on several occasions the Court has observed that Plaintiff cannot predicate his Eighth Amendment claim on the bare possibility that a medical procedure might be performed incorrectly.

The uncontroverted facts demonstrate that the lethal injection protocol can be implemented by using Plaintiff's femoral vein, and that doing so will not create a substantial risk of serious injury or needless suffering. Therefore, the fact that Plaintiff's peripheral veins cannot be used will not support the first component of Plaintiff's claim.

2. Plaintiff's Obstructed Airway

As discussed in Part I.B, the facts construed in Plaintiff's favor would permit a factfinder to conclude

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[7] To the extent Plaintiff contends that there is no evidence demonstrating that Plaintiff's femoral veins are unaffected by his disease, this argument does not change the Court's opinion. If there is no evidence that will establish any problems with the use of Plaintiff's femoral vein, then there is no reason to have a trial on the issue. Without evidence, it is a foregone conclusion that Plaintiff cannot prevail on this issue.

that for as long as four minutes Plaintiff could be aware that he is choking or unable to breathe but be unable "adjust" his breathing to remedy the situation. In seeking summary judgment Defendants have not contended that such a situation would not satisfy *Glossip* (and the Court does not hold whether it does or does not); Defendants' sole argument is that Plaintiff would likely experience this sensation for twenty to thirty seconds or, at worst, fifty-two seconds. As discussed before, this is a factual dispute that the Court cannot resolve on summary judgment, and would have to be resolved at trial. Therefore, solely for purposes of further discussion, the Court presumes that there is a substantial risk that Plaintiff will experience choking and an inability to breathe for up to four minutes.

B. Alternative Measures

Plaintiff contends that death through nitrogen gas-induced hypoxia will significantly reduce the risks of severe pain and suffering. Defendants do not argue that this method of execution is not feasible or readily implemented. Instead, Defendants argue that the Record demonstrates this method of execution will not reduce Plaintiff's risk of pain and suffering. Plaintiff disputes this point and further contends that he is not required to identify an alternative method of execution.

The Court addresses Plaintiff's second point first. He contends that *Glossip* does not apply because that case involved a facial challenge and he presents an as-applied challenge. The Court disagrees. First, *Glossip* set forth the requirements for an Eighth Amendment challenge to an execution method. The Supreme Court did not distinguish between facial and as-applied challenges, and it did not provide a basis for

interpreting *Glossip* as creating such a distinction. To the contrary, the Supreme Court specified that the need to "identify a known and available alternative method of execution that entails a lesser risk of pain [is] a requirement of *all* Eighth Amendment method-of-execution claims." *Glossip*, 135 S. Ct. at 2731 (emphasis supplied). Second, the Eighth Circuit clearly directed that Plaintiff must (1) identify at the pleading stage and (2) eventually prove that there is an alternative that will significantly reduce the risk. *Bucklew*, 783 F.3d at 1128. This is the law of the case, and the Court must adhere to it. Third, the Eighth Circuit has explicitly rejected Plaintiff's argument in other cases. *Williams v. Kelley*, 854 F.3d 998, 1001 (8th Cir.), *cert. denied*, 137 S. Ct. 1284 (2017) (citing *Johnson v. Lombardi*, 809 F.3d 388, 391 (8th Cir.), *cert. denied*, 136 S. Ct. 601 (2015)). For these reasons, the Court concludes Plaintiff is required to prove that there is a feasible and readily available alternative that will significantly reduce the risk of suffering that lethal injection will present.

The Court agrees with Defendants that the facts in the Record do not present a triable dispute on this issue. Given the risk of suffering that the Court identified as potentially supported by the Record, (*see* Part II.A.2, *supra*), the question is whether (1) the use of nitrogen gas will cause Plaintiff to become unaware of his choking and breathing difficulties sooner than he would under the current protocol, and (2) whether that difference in time is sufficient to permit the Court to find that nitrogen gas will make a "significant" difference in Plaintiff's suffering. Put another way: a finder of fact might conclude that if pentobarbital is used, there is a four minute period of time during which Plaintiff would experience significant suffering. Given that, could a finder of fact conclude that the use

of nitrogen gas will significantly reduce that period of awareness?

Defendants point to their expert's supplemental report, wherein he states that "the use of lethal gas does not hold any advantage compared to lethal injection with respect to pain and suffering. Both methods would result in minimal pain and suffering." (Doc. 182-1.) This requires Plaintiff to identify facts in the Record that create a factual dispute necessitating a trial, but Plaintiff has not identified any such facts. Dr. Zivot would not address the issue in his deposition, (Doc. 182-1, pp. 38-40), and Plaintiff does not contend that Dr. Zivot's testimony creates a factual dispute. Plaintiff instead relies on Dr. Antognini's deposition, but the Court has reviewed the cited testimony and finds nothing that supports Plaintiff's position. [8] Dr. Antognini was asked to compare the use of pentobarbital to nitrogen gas, but his answer does not indicate that there are any differences between them. (Doc. 182-5, pp. 58-59.) To the contrary, he stated:

> You know, you get – you can get suffering from hypoxia, you know, because somebody can be awake and realize that they're not getting enough oxygen. So depending on – on how it's used, you might get more suffering from nitrogen gas than you would from Pentobarbital. Or you might get less suffering, you know, it depends on how you would use it, I guess.

(Doc. 182-5, p. 59.) As relevant to the claim at issue, Dr. Antognini specifically stated that he believed there

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[8] Plaintiff also attempts to create factual disputes about the Missouri Department of Corrections' efforts to research the viability and effects of executing prisoners with nitrogen gas, but the issue is not relevant under the governing legal principles.

would be no difference in the "speed" of lethal gas as compared to pentobarbital. (*Id.*) Plaintiff points to Dr. Antognini's indication that nitrogen gas would "quickly" cause unconsciousness, (Doc. 182-5, p. 59), but this is unavailing for two reasons. First, Dr. Antognini said the same thing about pentobarbital; in his opinion, both would "quickly" cause unconsciousness. Thus, this opinion does not support the proposition that nitrogen hypoxia would cause unconsciousness sooner than pentobarbital. Second, the premise for Plaintiff's claim is that there is a period between unconsciousness and brain death during which he will experience pain. Therefore, establishing the speed with which unconsciousness will be achieved does not support Plaintiff's claim; he must identify evidence establishing how quickly nitrogen-induced hypoxia will cause brain death so that any such evidence can be contrasted with Dr. Zivot's testimony that Plaintiff might be aware that he is choking for up to four minutes. There is no evidence suggesting that nitrogen hypoxia will be faster than pentobarbital, so there is no factual dispute to resolve. In the absence of evidence contradicting Defendants' expert and supporting Plaintiff's theory, there is not a triable issue.

Plaintiff also points to the fact that Louisiana and Oklahoma have approved the use of nitrogen gas in their death penalty protocols. This evidence might be relevant in establishing the feasibility or ready availability of this method of execution, but it does not establish whether nitrogen gas will significantly reduce the risk of suffering Plaintiff has described. Plaintiff cites a report from Oklahoma for the proposition that "high altitude pilots who train to recognize the symptoms of nitrogen hypoxia in airplane depressurizations do not report any feelings of suffocation, choking or gagging." (Doc. 197, p. 48 n.6 (citing Doc.

192-14, p. 78).) Assuming this is competent evidence that can be considered on summary judgment, Plaintiff is not trained to recognize the symptoms of nitrogen hypoxia and it is unlikely that the pilots who were trained to recognize the symptoms of hypoxia also suffered from cavernous hemangioma. Plaintiff additionally refers to a report from Louisiana, which itself cites other materials for the proposition that nitrogen hypoxia allows a person to expel carbon dioxide buildup and thereby reduce suffocation caused by respiratory acidosis. (Doc. 197, p. 48 n.6 (citing Doc. 192-17, p. 19).) Assuming again that this is competent evidence, Plaintiff's theory is that he will experience suffocation due to his tumors, not due to respiratory acidosis. Finally, none of this evidence purports to compare the effects of nitrogen gas hypoxia to the effects of pentobarbital, particularly as related to the speed with which brain death will occur. Therefore, this anecdotal evidence does not conflict with Dr. Antognini's testimony and therefore does not create a factual dispute.[9]

The Record establishes that the use of nitrogen gas will not act faster than pentobarbital. Therefore, nitrogen gas will not significantly reduce the risk of suffering Plaintiff faces if he is executed under Missouri's current protocol.

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[9] Plaintiff has also provided a "Preliminary Draft" of a document prepared at the request of an Oklahoma State Representative. (Doc. 199-12, pp. 15-28.) The authors' qualifications to opine on medical matters are not established. The report bears the instruction "Do Not Cite." The report generally discusses the feasibility and effectiveness of using nitrogen gas in executions, but it does not purport to answer the questions relevant to the case. For these reasons, this report also does not create a factual dispute.

III. CONCLUSION

For the reasons set forth above, Defendants' Motion for Summary Judgment on Count I is GRANTED.

IT IS SO ORDERED.

/s/ Beth Phillips
BETH PHILLIPS, JUDGE
UNITED STATES DISTRICT COURT

DATE: June 15, 2017

IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF MISSOURI
WESTERN DIVISION

Case No. 14-8000-CV-W-BP

RUSSELL BUCKLEW,

Plaintiff,

v.

GEORGE A. LOMBARDI, *et al.*,

Defendants.

ORDER DENYING PLAINTIFF'S REQUEST FOR ACCESS TO DEPOSITIONS TAKEN IN OTHER CASES

This is a civil rights lawsuit brought by a condemned inmate. The Fourth Amended Complaint presented three claims that generally challenged various aspects of the State's execution procedures. Counts II and III were dismissed on January 29, 2016, (Doc. 63), and summary judgment was granted to Defendants on Count I on June 15, 2017. (Doc. 202.) One of Plaintiff's attorneys (Ms. Cheryl Pilate) has now informally requested permission to share certain depositions with other attorneys representing Plaintiff. These depositions record testimony from individuals personally involved in the process for carrying out executions for the State and have been identified as M2 and M3. The depositions were taken in other cases and are subject to Protective Orders issued in those cases. Ms. Pilate has access to the depositions of M2 and M3 because she represented Plaintiff in those other cases. She

advises that she wants to share the depositions with the other attorneys now representing Plaintiff so that together they can "effectively develop their arguments that denial of access [to the depositions] constitutes a due process violation." Defendants contend that this issue was addressed previously, and the Court should adhere to its decision that the depositions need not be shared because they contain no information related to Count I. The Court agrees with Defendants.

The Court previously held that information about the execution team's qualifications was irrelevant to the issues presented in Count I. (Doc. 183, pp. 2-5.) The Court reached this decision because "[a]ccording to Count I, the only way to significantly diminish the pain and suffering resulting from lethal injection is to execute Plaintiff with lethal gas." (Doc. 183, p. 3.) Therefore, "the substantial risk of serious harm that forms the basis for Count I does not depend on the execution team's training and experience. For instance, while Count I alleges that the execution protocol will cause him to hemorrhage, cough, choke and suffocate, thereby suffering an 'excruciating execution,' it does not allege that this risk is due to the execution team's training or expertise. Count I also does not allege that more or different training will decrease these risks." (Doc. 183, p. 4.)

Thus, the Court did not bar Ms. Pilate's ability to share the depositions solely because they were subject to Protective Orders in other cases. The Court focused on whether the depositions were relevant to any of the issues in the case. After concluding they were not, there was no justification for considering whether to allow access to the depositions. The Court's decision was the functional equivalent of a determination that the material sought was not "relevant to any party's

claim or defense and proportional needs of the case," Fed. R. Civ. P. 26(b)(1), and there is no basis for reaching a different conclusion now that the Court has disposed of all the claims in the case.

IT IS SO ORDERED.

/s/ Beth Phillips
BETH PHILLIPS, JUDGE
UNITED STATES DISTRICT COURT

DATE: July 17, 2017

IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF MISSOURI

Case No. 4:14-CV-8000-BP

RUSSELL BUCKLEW,

Plaintiff,

v.

GEORGE LOMBARDI, *et al.*,

Defendants.

Hon. Beth Phillips

NOTICE OF FILING OF DISCOVERY DISPUTE SUMMARIES

Plaintiff Russell Bucklew, by and through his counsel, hereby submits for the record the attached one-page discovery dispute summaries that had previously been submitted directly to the district court by counsel for Plaintiff and counsel for Defendants. The court subsequently ruled on the discovery dispute by issuing a written Order (Doc. 214) rather than by holding a teleconference with counsel, as had been originally planned. Plaintiff submits the attached one-page summaries (Exhs. 1 and 2) for the purpose of having a complete record on this issue. Defendants do not oppose the filing of the one-page summaries in the Court's ECF file.

Respectfully submitted,

/s/ Cheryl A. Pilate
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Brief Summary of Plaintiff Bucklew's Request to Allow Counsel Cheryl Pilate To Share the Previous Depositions of M3 with Co-Counsel

Plaintiff seeks this Court's order allowing counsel Cheryl Pilate to share the three depositions of the execution team doctor, M3, with her co-counsel at the Sidley firm. These depositions were taken in *Ringo v. Lombardi*, Case No. 09-4095 (M3 depo. 9/24/10) and in *Zink v. Lombardi*, Case No. 12-4209 (M3 depos. 7/11/13 and 1/16/14). Mr. Bucklew was one of the plaintiffs in both of those actions, and Ms. Pilate was his counsel. Those depositions are relevant to Plaintiff's claims in the present case, and allowing counsel to share those depositions among themselves would allow them to more effectively develop and present their argument that Mr. Bucklew's ability to prove his Eighth Amendment claim has been greatly hindered by his counsels' inability to use the M3 depositions.

To be clear, the present request is only to allow all counsel to view the depositions. This Court has already ruled that those depositions may not be used in this case, which means their contents cannot be referenced and they cannot be cited or relied upon. Mr. Bucklew has asserted that the denial of access to the depositions constitutes a due process violation. If all of Mr. Bucklew's counsel are able to review the depositions, Plaintiff believes they will be able to more effectively develop their arguments that denial of access constitutes a due process violation. To date, Mr. Bucklew's counsel at the Sidley firm have never seen any of the depositions and have no idea of their contents. Although Ms. Pilate knows the contents, she has been unable to discuss them with her co-counsel or to explain, even in general terms, why lack of access to them has impaired Plaintiff's ability to litigate his due process claim.

The issue raised by Defendants, that granting access to counsel would potentially compromise M3's identity, is a red herring. Those depositions, particularly the one taken in *Ringo*, have been used, referenced and relied upon by multiple counsel representing various plaintiffs throughout the litigation of both the *Ringo* and *Zink* cases and during related litigation for stays of execution. Counsel have always abided by the protective orders in those cases. For instance, when M3's deposition was filed in the *Ringo* case, it was, of course, filed under seal. (*Ringo,* Doc. 211, Exh. 5, filed 1/21/2011). In the *Zink* case, the court entered an order allowing the parties to make use of the depositions of M2 and M3 that were taken in *Ringo*. (*Zink*, Doc. 113, 7/23/2013). At no time has M3's identity ever been discovered, nor has there been a hint in any of the prior cases that any information in those depositions could be used to discern M3's identity.

Counsel in this case have scrupulously abided by the protective order, and there is simply no risk that M3's identity may be compromised by granting counsel access to these depositions.

Counsel Cheryl Pilate is aware of information in the M3 depositions that is directly relevant to the claims in this case. But because of the Court's orders, she has been unable to discuss with her co-counsel why that information is relevant, even in very broad terms. This restriction has greatly hindered the ability of Plaintiff to assert his present due process claim, which is raised in the Motion to Alter or Amend Judgment filed on July 13, 2017. To allow counsel to better refine and target their due process arguments, counsel requests that this Court permit the sharing of the M3 depositions among all of Mr. Bucklew's counsel.

Defendants' Memorandum re: protected depositions in earlier cases

During the July 10, 2017 phone conference, Plaintiff's counsels originally represented that they were not seeking permission to file M3 and M2 depositions, which are subject to protective orders in *Zink* and *Ringo* cases, to the Missouri Supreme Court in opposing the setting of an execution date for Bucklew, and referred to Defendants' counsel's concern that Plaintiff's counsel would seek to do just that as a "red herring." Nevertheless, Plaintiff's counsel, who participated in the *Zink* and *Ringo* litigation, specifically asked this Court for permission to share this protected material with her co-counsel in the *Bucklew* case for *unspecified* reasons. But this Court has already rejected that request in this case and should do so again.

During the motion to compel litigation, Plaintiff's counsel asked this Court to permit Plaintiff's original counsel to share the protected material with co-counsel. As this Court explained "[s]pecifically, Plaintiff wants information about the team member's training and experience, as well as access to depositions of team members that are the subject of protective orders in those other cases." Document 183 at 2. Defendants' [sic] opposed the request. The Court denied Plaintiff's request stating "Plaintiffs' request for additional details about team members and *access to their depositions from other cases is denied.*" *Id.* at 5. Nothing relevant to that order has changed since this Court issued it.

Missouri Revised Statute 546.720 protects the identities of execution team members and documents that could reveal their identities, and defines the material as privileged and protected from disclosure by law.

Depositions of M2 and M3 discussing their practices and experience fall within the universe of privileged material under §546.720 prohibiting disclosure. This Court has already held that both M3's and M2's depositions contain enough information to allow a reader to "figure out" their identities and that there is no way to redact the depositions that will preserve their identities. *Ringo v. Lombardi*, 09-4095 Doc. 317 at 11. This Court has also held that if their identities are revealed they are subject to a substantial risk of harassment and invasion of privacy, and the State's ability to perform government functions would be compromised. *Id.* at 10. This Court's protective orders should not be modified to broaden the universe of persons who have access to the depositions from the now completed litigation in *Ringo* and *Zink*.

IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF MISSOURI
WESTERN DIVISION

Case No. 14-8000-CV-W-BP

RUSSELL BUCKLEW,

Plaintiff,

v.

GEORGE A. LOMBARDI, *et al.*,

Defendants.

ORDER AND OPINION DENYING PLAINTIFF'S MOTION TO ALTER OR AMEND JUDGMENT

On June 15, 2017, the Court granted summary judgment to Defendants on the sole remaining claim from the Fourth Amended Complaint. (Doc. 202.) In that claim, Plaintiff asserted that the State's execution protocol as applied to him would violate the Eighth Amendment's proscription against cruel and unusual punishment. Plaintiff has now filed a Motion to Alter or Amend Judgment pursuant to Rule 59(e). "Rule 59(e) motions serve the limited function of correcting manifest errors of law or fact or to present newly discovered evidence." *United States v. Metropolitan St. Louis Sewer Dist.*, 440 F.3d 930, 933 (8th Cir. 2006). Plaintiff does not seek to present newly discovered evidence. Instead, he contends the Court (1) overlooked certain facts, (2) applied the wrong legal standard, and (3) limited discovery in a manner that deprived him of a fair opportunity to support his claims. The Court

discusses each of these issues below and concludes the motion, (Doc. 210), should be DENIED.

I. BACKGROUND

Placing Plaintiff's arguments in context requires a summary of the law governing Plaintiff's claim and the basis for the Court's June 15 Order. As the Court explained,

> a prisoner alleging that a particular form of execution is cruel and unusual within the meaning of the Eighth Amendment must first establish that the method to be utilized presents a risk that is sure or very likely to cause serious illness and needless suffering, and give rise to sufficiently imminent dangers. The prisoner must then "identify a known and available alternative method of execution that entails a lesser risk of pain, a requirement of all Eighth Amendment method-of-execution claims. The alternative must be feasible, readily implemented, and in fact significantly reduce the substantial risk of severe pain.

(Doc. 202, p. 6 (quotations and citations omitted).) The current execution protocol calls for "the intravenous administration of pentobarbital in dosages sufficient to cause unconsciousness and eventually death." (Doc. 202, p. 3.) Plaintiff suffers from a congenital medical condition known as cavernous hemangioma, which "causes clumps of weak, malformed blood vessels and tumors to grow throughout his body, including his head, face, neck and throat." (Doc. 202, p. 2.) He alleges that his condition makes it difficult to breathe and that after the pentobarbital takes effect he will experience a choking sensation even after he is unconscious because he will be unable to control his breathing.

In granting Defendants' summary judgment the Court concluded that the Record, construed in the light most favorable to Plaintiff, demonstrated that there is a risk that Plaintiff will experience choking and an inability to breathe for fifty-two to 240 seconds – the time between unconsciousness and brain death. (Doc. 202, pp. 4-5, 8-9.) The Court then considered whether Plaintiff's proposed alternative – nitrogen gas – would "cause Plaintiff to become unaware of his choking and breathing difficulties sooner than he would under the current protocol, and (2) whether that difference in time is sufficient to permit the Court to find that nitrogen gas will make a 'significant' difference in Plaintiff's suffering." (Doc. 202, p. 10.) The Court reviewed the evidence in the Record and determined that the uncontroverted facts demonstrated that hypoxia induced by nitrogen gas "will not act faster than pentobarbital. Therefore, nitrogen gas will not significantly reduce the risk of suffering Plaintiff faces if he is executed under Missouri's current protocol." (Doc. 202, p. 12.)

II. DISCUSSION

A. Factual Matters

Plaintiff contends that the Court erred by failing to contrast the effect of him being in a supine position under the State's current execution protocol evidence with his ability to be seated if he is executed with nitrogen gas. As the Court noted, Plaintiff has difficulty breathing, "and that difficulty is exacerbated when he is in a supine position." (Doc. 202, p. 3.) However, there is no evidence in the Record establishing that (1) Plaintiff must be in a supine position after the IV is inserted, or, more importantly, that (2) sitting while nitrogen gas is administered will make an appreciable difference in Plaintiff's ability to

breathe. As the Court explained, "the premise for Plaintiff's claim is that there is a period between unconsciousness and brain death during which he will experience pain" because he will be unable to control his breathing and prevent choking. (Doc. 202, p. 11.) Plaintiff does not identify any overlooked evidence establishing that he must remain on his back after the IV is inserted.

He also does not identify any overlooked evidence that there is a significant difference in his ability to breathe when he is unconscious and sitting as compared to when he is unconscious and lying down. To the contrary, as the Court explained, there is no evidence in the Record establishing that nitrogen gas will cause brain death sooner than pentobarbital, which means that with nitrogen gas Plaintiff could be aware that he is choking for up to four minutes, just as the Record (construed in Plaintiff's favor) suggests would be the case with pentobarbital. (Doc. 202, p. 11.) Thus, even if he could not sit upright after the IV is inserted, there is no evidence suggesting this would cause suffering that would be alleviated through the use of nitrogen gas.

Plaintiff also contends the Court misinterpreted an Interim Report from a Grand Jury in Oklahoma, which heard testimony from a professor that "high altitude pilots who train to recognize the symptoms of nitrogen hypoxia in airplane depressurizations do not report any feelings of suffocation, choking, or gagging." (Doc. 192-14, p. 78.) The Court noted this information and observed that "[a]ssuming this is competent evidence that can be considered on summary judgment, Plaintiff is not trained to recognize the symptoms of nitrogen hypoxia and it is unlikely that the pilots who were trained to recognize the symptoms of hypoxia

also suffered from cavernous hemangioma." (Doc. 202, p. 12.) Plaintiff argues that the Court misapprehended the point of this information, which was to establish that even pilots trained to recognize nitrogen hypoxia do not report choking or suffocation, so it is unlikely that Plaintiff would notice such effects. With this explanation, Plaintiff is correct that his lack of training is not relevant. However, Plaintiff has not overcome the Court's concerns that a professor's testimony to a grand jury about what pilots have reported is not competent medical evidence about the effects of nitrogen hypoxia. Relatedly, it remains unlikely that the pilots suffered from cavernous hemangioma, so their anecdotal reports are not sufficient to satisfy Plaintiff's burden.

Plaintiff's claim required evidence establishing that nitrogen hypoxia produces a shorter time between unconsciousness and brain death than would pentobarbital. There is no such evidence in the Record. There is, however, evidence that the time between unconsciousness and brain death (whatever that interval is) would be the same under both execution methods. Accordingly, there is no basis in fact for altering the Court's judgment.

B. Interpretation and Application of the Legal Standard

Plaintiff contends the Court has "imposed an impossible standard on Plaintiff" because his unique medical condition makes it impossible for him to produce the "side-by-side comparison between the length of time required to produce unconsciousness by lethal injection versus lethal gas." (Doc. 210, p. 5.) He also believes he was "penalize[d] . . . because his expert would not opine on how to kill Plaintiff with lethal gas." (*Id.*) While Plaintiff argues against the legal standard

utilized by the Court, he does not contend that it was wrong. That is, Plaintiff does not argue that the Court failed to follow the governing standard as set forth in such cases as *Glossip v. Gross*, 135 S. Ct. 2726 (2015), and *Bucklew v. Lombardi*, 783 F.3d 1120 (8th Cir. 2015) (en banc), and thus has not demonstrated that the Court committed legal error.

C. Discovery Issues

Early in the discovery process, the Court issued an Order Regarding the Scope of Discovery. (Doc. 105.) Plaintiff contends that his "ability to prove his Eighth Amendment claim has been crippled by" limits on access to information about and from members of the execution team. (Doc. 210, p. 6.) The Court addressed the issue in the order regarding the scope of discovery, as well as at other times, (*e.g.*, Doc. 183; Doc. 214), and further discussion of the issue is unnecessary.

III. CONCLUSION

For these reasons, Plaintiff's motion for relief pursuant to Rule 59(e) is DENIED.

IT IS SO ORDERED.

/s/ Beth Phillips
BETH PHILLIPS, JUDGE
UNITED STATES DISTRICT COURT

DATE: August 21, 2017

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UNITED STATES COURT OF APPEALS
FOR THE EIGHTH CIRCUIT

Case 17-3052

RUSSELL BUCKLEW,

Bucklew-Appellant,

vs.

ANNE PRECYTHE, *et al.*,

Defendants-Appellees.

On Appeal from the United States District Court
for the Western District of Missouri
Case 4:14-CV-08000-BP

OPENING BRIEF FOR APPELLANT
RUSSELL BUCKLEW

* * *

Angioma, Angioma Alliance (last updated Aug. 26, 2016), *available at* http://www.angiomaalliance.org/pages.aspx?content=62. Cavernous hemangioma in the oral cavity typically affects the lips, tongue, buccal mucosa, and palate, and, is exceedingly rare, with a prevalence rate of less than 1% of those with cavernous hemangioma (.002% of the general population). Wang, Minhua, MD et al., *Cavernous Hemangioma of the Uvula: Report a Rare Case with Literature Review*, North American Journal of Medicine and Science, Vol 8, 1 at 56 (June 2015). A case like Bucklew's involving the uvula "is extremely rare." *Id.*

Because of his condition, Bucklew's uvula is grossly enlarged and his airway is severely compromised. (ADD002-03; APP0404 at ¶III.A; APP0407 at ¶V.A.1.) Further, the tumors in his airway are "very susceptible to rupture." (ADD002-03; APP0405 at ¶III.F; APP0352 at 101:3-21; APP0356 at 114:17-115:2.) The tumors in Bucklew's airway, including his grossly swollen uvula, make it difficult for him to breathe, a difficulty exacerbated when Bucklew is forced to lie supine. (ADD003; APP0408 at ¶V.B.1-2, 7; APP0411 at ¶VI.H; APP1062-63; *see* APP0354 at 106:7-107:13.) When Bucklew is in a fully supine position, his uvula is pulled, by force of gravity, back into his airway thereby effectively blocking airflow. (*See* APP0408 at ¶V.B.1.) To prevent suffocation while in the supine position, Bucklew must consciously monitor and mechanically adjust his breathing in order to shift his swollen uvula and permit airflow.

* * *

Bucklew has demonstrated a genuine issue of material fact regarding whether he will be required to lie supine for the duration of the Execution Procedure. The District Court's resolution of this dispute was reversible error.

2. There Is Ample Evidence That Bucklew's Suffering Will Substantially Increase During An Execution In The Supine Position.

There can be no doubt that Bucklew's suffering will substantially increase during an execution in which he is forced to remain supine. Ample evidence in the record demonstrates that even under the best circumstances—sleeping in his own bed—Bucklew cannot comfortably or safely recline in a fully supine

position. (APP0408 at ¶V.B.1.) Rather, he is forced to prop himself up at an incline using extra pillows while lying on his side so that gravity will pull his uvula to one side of his airway allowing air to pass through the other side while he sleeps. (*Id.*) Defendants argue that because Bucklew was able to lie flat for an MRI in December 2016, there is no reason why he could not lie flat during the execution procedure. (APP0260; APP0359-61.) However, this assumes that there is an apt comparison between a medical MRI procedure and the Execution Procedure. There is not.

First, unlike in the MRI, during the Execution Procedure Bucklew would be forced to lie flat while a medical professional of unknown skill or qualification carves into his upper thigh near his groin in order to visualize the femoral vein to

* * *

reduce[s] a substantial risk of severe pain" posed by the state's existing execution method); (ADD008 (requiring Bucklew to "quantify the risks" of harm)).

The District Court ignored the fact that M2's and M3's training and experience can have a dramatic impact on the extent to which the Execution Procedure, as applied to Bucklew, will lead to substantial suffering—and thus this evidence can have a substantial impact on *whether an alternative will substantially reduce that severe level of suffering*. *See supra* pp. 9-11 (describing the discretionary authority M2 and M3 have to carry out the Execution Procedure as they see fit). Bucklew's execution will not be like every other execution; indeed, given the rarity of Mr. Bucklew's condition, it may well be like *no* other execution the medical technicians have ever trained for or carried out.

There is evidence that implementing the State's Execution Procedure will be difficult and unusual given Bucklew's severe medical condition. There is evidence that Bucklew will be forced to lie supine, resulting in choking, gagging, hemorrhaging, and ultimately suffocation on his own blood. *See supra* pp. 5, 8, 10. In addition, the District Court acknowledged that the State's Execution Procedure will require the medical team to obtain IV access through the femoral vein by way of an invasive and outdated cut-down procedure. *Supra* pp. 7-9. Yet the District Court denied Bucklew discovery into the training and experience of the medical personnel that would disclose whether the person who will administer

* * *

UNITED STATES COURT OF APPEALS
FOR THE EIGHTH CIRCUIT

Case 17-3052

RUSSELL BUCKLEW,

Bucklew-Appellant,

vs.

ANNE PRECYTHE, *et al.*,

Defendants-Appellees.

On Appeal from the United States District Court
for the Western District of Missouri
Case 4:14-CV-08000-BP

REPLY BRIEF FOR APPELLANT RUSSELL BUCKLEW

* * *

Bucklew lacked sufficient information to assert this claim until Dr. Zivot examined his medical records in April 2014. Just a few weeks thereafter, he filed this lawsuit asserting his as-applied challenge. His claim is timely and not barred by prior litigation.

The statute of limitations for Bucklew's Section 1983 as-applied challenge is five years. *See Johnson v. Lombardi*, C.A. No. 2:15-cv-4237-DGK, 2016 WL 5852868, at *5 (W.D. Mo. Sept. 30, 2016); Mo. Rev. Stat. § 516.120(4). "The limitations clock . . . [does not] begin ticking" until "the plaintiff can file suit and obtain relief" on the particular claim in question. *Johnson*,

2016 WL 5852868, at *5 (quotation omitted). Bucklew filed his as-applied challenge on May 9, 2014. So unless he could have asserted and potentially obtained relief on his as-applied challenge as far back as May 8, 2009, his claim is timely.

Defendants rely only on Bucklew's 2008 petition for expert funding as evidence that he could have and should have brought his as-applied challenge sooner. But the 2008 petition was simply a request for funding so that Bucklew could investigate his medical condition *to uncover facts that might support a proper claim*. ECF No. 182-15 at 1. It is true, as Defendants observe, that Bucklew in 2008 (1) knew he had a hemangioma and (2) that it was a "high flow" condition. (Appellee Br. at 40.) But that Bucklew knew he had a disease and

* * *

UNITED STATES COURT OF APPEALS,
EIGHTH CIRCUIT

No. 17-3052

RUSSELL BUCKLEW,

Plaintiff-Appellant,

v.

ANNE L. PRECYTHE, DIRECTOR OF THE DEPARTMENT OF CORRECTIONS, *et al.*,

Defendants-Appellees.

Submitted: February 2, 2018
Filed: March 6, 2018

OPINION

Before WOLLMAN, LOKEN, and COLLOTON, Circuit Judges.

LOKEN, Circuit Judge

The issue is whether the Eighth and Fourteenth Amendments, as applied, bar Missouri officials from employing a procedure that is authorized by Missouri statute to execute Russell Bucklew.

In March 2006, Bucklew stole a car; armed himself with pistols, handcuffs, and a roll of duct tape; and followed his former girlfriend, Stephanie Ray, to the home of Michael Sanders, where she was living. Bucklew knocked and entered the trailer with a pistol in each hand when Sanders's son opened the door.

Sanders took the children to the back room and grabbed a shotgun. Bucklew began shooting. Two bullets struck Sanders, one piercing his chest. Bucklew fired at Sanders's six-year-old son, but missed. As Sanders bled to death, Bucklew struck Ray in the face with a pistol, handcuffed Ray, dragged her to the stolen car, drove away, and raped Ray in the back seat of the car. He was apprehended by the highway patrol after a gunfight in which Bucklew and a trooper were wounded.

A Missouri state court jury convicted Bucklew of murder, kidnaping, and rape. The trial court sentenced Bucklew to death, as the jury had recommended. His conviction and sentence were affirmed on direct appeal. *State v. Bucklew*, 973 S.W.2d 83 (Mo. banc 1998). The trial court denied his petition for post-conviction relief, and the Supreme Court of Missouri again affirmed. *Bucklew v. State*, 38 S.W.3d 395 (Mo. banc 2001). We subsequently affirmed the district court's denial of Bucklew's petition for a federal writ of habeas corpus. *Bucklew v. Luebbers*, 436 F.3d 1010 (8th Cir. 2006). The Supreme Court of Missouri issued a writ of execution for May 21, 2014. Bucklew filed this action under 42 U.S.C. § 1983, alleging that execution by Missouri's lethal injection protocol, authorized by statute, would constitute cruel and unusual punishment in violation of the Eighth and Fourteenth Amendments as applied to him because of his unique medical condition. Bucklew appeals the district court's[1] grant of summary judgment in favor of the state defendants because Bucklew failed to present adequate evidence to establish his claim under the governing standard established by the Supreme Court in *Baze v.*

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[1] The Honorable Beth Phillips, United States District Judge for the Western District of Missouri.

Rees, 553 U.S. 35, 128 S.Ct. 1520, 170 L.Ed.2d 420 (2008), and *Glossip v. Gross*, —— U.S. ——, 135 S.Ct. 2726, 192 L.Ed.2d 761 (2015). Reviewing the grant of summary judgment *de novo*, we affirm.

I.

Missouri's method of execution is by injection of a lethal dose of the drug pentobarbital. Two days before his scheduled execution in 2014, the district court denied Bucklew's motion for a stay of execution and dismissed this as-applied action *sua sponte*. On appeal, a divided panel granted a stay of execution, *Bucklew v. Lombardi*, 565 Fed. Appx. 562 (8th Cir. 2014); the court en banc vacated the stay. Bucklew applied to the Supreme Court for a stay of execution, and the Court issued an Order granting his application "for stay pending appeal in the Eighth Circuit." This court, acting en banc, reversed the *sua sponte* dismissal of Bucklew's as-applied Eighth Amendment claim and remanded to the district court for further proceedings. *Bucklew v. Lombardi*, 783 F.3d 1120, 1128 (8th Cir. 2015) ("*Bucklew I*"). On the same day, the en banc court affirmed the district court's dismissal on the merits of a facial challenge to Missouri's lethal injection protocol filed by several inmates sentenced to death, including Bucklew. *Zink v. Lombardi*, 783 F.3d 1089, 1114 (8th Cir.), *cert denied*, —— U.S. ——, 135 S.Ct. 2941, 192 L.Ed.2d 976 (2015).[2]

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[2] "The doctrine of res judicata or claim preclusion bars relitigation of a § 1983 claim if the prior judgment was a final judgment on the merits rendered by a court of competent jurisdiction, and if the same cause of action and the same parties or their privies were involved." *Baker v. Chisom*, 501 F.3d 920, 925 (8th Cir. 2007), *cert denied*, 554 U.S. 902, 128 S.Ct. 2932, 171 L.Ed.2d 864 (2008). As Bucklew was a plaintiff in *Zink*, any facial

Our decision in *Bucklew I* set forth in considerable detail the allegations in Bucklew's as-applied complaint regarding his medical condition. 783 F.3d at 1124-26. Bucklew has long suffered from a congenital condition called cavernous hemangioma, which causes clumps of weak, malformed blood vessels and tumors to grow in his face, head, neck, and throat. The large, inoperable tumors fill with blood, periodically rupture, and partially obstruct his airway. In addition, the condition affects his circulatory system, and he has compromised peripheral veins in his hands and arms. In his motion for a stay of execution in *Bucklew I*, Bucklew argued:

> Dr. Joel Zivot, a board-certified anesthesiologist . . . concluded after reviewing Mr. Bucklew's medical records that a substantial risk existed that, because of Mr. Bucklew's vascular malformation, the lethal drug will likely not circulate as intended, creating a substantial risk of a "prolonged and extremely painful execution." Dr. Zivot also concluded that a very substantial risk existed that Mr. Bucklew would hemorrhage during the execution, potentially choking on his own blood—a risk

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challenge to the current method of execution in this case is precluded. Defendants argue that Bucklew's as-applied challenge is also precluded because it could have been raised in *Zink*. *See Brown v. St. Louis Police Dep't*, 691 F.2d 393, 396 (8th Cir. 1982). Like the district court, we decline to address this complex issue. *See Bucklew I*, 783 F.3d at 1122 n.1; *cf. Whole Woman's Health v. Hellerstedt*, — U.S. —, 136 S.Ct. 2292, 2305, 195 L.Ed.2d 665 (2016). We likewise decline to address defendants' claim that Bucklew's as-applied challenge is barred by the applicable statute of limitations. *See Boyd v. Warden, Holman Corr. Facility*, 856 F.3d 853, 874-76 (11th Cir. 2017).

> greatly heightened by Mr. Bucklew's partially obstructed airway.
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> * * *
>
> [The Department of Corrections has advised it would not use a dye in flushing the intravenous line because Dr. Zivot warned that might cause a spike in Bucklew's blood pressure.] Reactionary changes at the eleventh hour, without the guidance of imaging or tests, create a substantial risk to Mr. Bucklew, who suffers from a complex and severe medical condition *that has compromised his veins.*
>
> * * *
>
> The DOC seems to acknowledge they agree with Dr. Zivot that Mr. Bucklew's obstructed airway presents substantial risks of needless pain and suffering, but what they plan to do about it is a mystery. Will they execute Mr. Bucklew in a seated position? . . . The DOC should be required to disclose how it plans to execute Mr. Bucklew so that this Court can properly assess whether additional risks are present. . . . Until Mr. Bucklew knows what protocol the DOC will use to kill him, and until the DOC is required to conduct the necessary imaging and testing to quantify the expansion of Mr. Bucklew's hemangiomas and the extent of his airway obstruction, it is not possible to execute him without substantial risk of severe pain and needless suffering.

Defendants' Suggestions in Opposition argued that Bucklew's "proposed changes . . . with the exception of his complaint about [dye], which Missouri will not use in Bucklew's execution, are not really changes in the method of execution."

Glossip and *Baze* established two requirements for an Eighth Amendment challenge to a method of execution. First, the challenger must "establish that the method presents a risk that is *sure or very likely* to cause serious illness and needless suffering, and give rise to sufficiently *imminent* dangers." *Glossip*, 135 S.Ct. at 2737 (emphasis in original), citing *Baze*, 553 U.S. at 50, 128 S.Ct. 1520. This evidence must show that the pain and suffering being risked is severe *in relation to* the pain and suffering that is accepted as inherent in any method of execution. *Id.* at 2733. Second, the challenger must "identify an alternative that is feasible, readily implemented, and in fact significantly reduces a substantial risk of severe pain." *Glossip*, 135 S.Ct. at 2737, citing *Baze*, 553 U.S. at 52, 128 S.Ct. 1520. This two-part standard governs as-applied as well as facial challenges to a method of execution. *See, e.g., Jones v. Kelley*, 854 F.3d 1009, 1013, 1016 (8th Cir. 2017); *Williams v. Kelley*, 854 F.3d 998, 1001 (8th Cir. 2017); *Johnson v. Lombardi*, 809 F.3d 388, 390 (8th Cir. 2015); *Bucklew I*, 783 F.3d at 1123, 1127. As a panel we are bound by these controlling precedents. Bucklew argues the second *Baze/Glossip* requirement of a feasible alternative method of execution that substantially reduces the risk of suffering should not apply to "an individual who is simply too sick and anomalous to execute in a constitutional manner," like those who may not be executed for mental health reasons. *See, e.g., Ford v. Wainwright*, 477 U.S. 399, 410, 106 S.Ct. 2595, 91 L.Ed.2d 335 (1986). The Supreme Court has not recognized a categorical exemption from the death penalty for individuals with physical ailments or disabilities. Thus, in the decision on appeal, the district court properly applied the *Baze/Glossip* two-part standard in dismissing Bucklew's as-applied claim.

We concluded in *Bucklew I*, based on a record "which went well beyond the four corners of Bucklew's complaint," that the complaint's allegations, bolstered by defendants' concession "that the Department's lethal injection procedure *would be changed* on account of his condition by eliminating the use of methylene blue dye," sufficiently alleged the first requirement of an as-applied challenge to the method of execution—"a substantial risk of serious and imminent harm that is sure or very likely to occur." 783 F.3d at 1127. We further concluded the district court's *sua sponte* dismissal was premature because these detailed allegations made it inappropriate "to assume that Bucklew would decline an invitation to amend the as-applied challenge" to plausibly allege a feasible and more humane alternative method of execution, the second requirement under the *Baze/ Glossip* standard. *Id.* In remanding, we directed that further proceedings "be narrowly tailored and expeditiously conducted to address only those issues that are essential to resolving" the as-applied challenge. *Id.* at 1128. We explained:

> Bucklew's arguments on appeal raise an inference that he is impermissibly seeking merely to investigate the protocol without taking a position as to what is needed to fix it. He may not be "permitted to supervise every step of the execution process." Rather, at the earliest possible time, he must identify a feasible, readily implemented alternative procedure that will *significantly* reduce a substantial risk of severe pain and that the State refuses to adopt. . . . Any assertion that all methods of execution are unconstitutional does not state a plausible claim under the Eighth Amendment or a cognizable claim under § 1983.

Id. (quotation omitted; emphasis in original).

II.

On remand, consistent with our directive, the district court first ordered Bucklew to file an amended complaint that adequately identified an alternative procedure. Twice, Bucklew filed amended complaints that failed to comply with this order. Given one last chance to comply or face dismissal, on October 13, 2015, Bucklew filed a Fourth Amended Complaint. As relevant here, it alleged:

> 106. Based on Mr. Bucklew's unique and severe condition, there is no way to proceed with Mr. Bucklew's execution under Missouri's lethal injection protocol without a substantial risk to Mr. Bucklew of suffering grave adverse events during the execution, including hemorrhaging, suffocating or experiencing excruciating pain.
>
> 107. Under any scenario or with any of lethal drug, execution by lethal injection poses an enormous risk that Mr. Bucklew will suffer extreme, excruciating and prolonged pain—all accompanied by choking and struggling for air.
>
> 128. In May 2014, the DOC also proposed a second adjustment in its protocol, offering to adjust the gurney so that Mr. Bucklew is not lying completely prone.[3] . . . As a practical matter, no adjustment would likely be sufficient, as the stress of the execution may unavoidably cause Mr. Bucklew's hemangiomas to rupture, leading to hemorrhaging, bleeding in his throat and through

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[3] In their answer to paragraph 128, defendants alleged: "Defendants admit that the Defendants offered to have the anesthesiologist position the angle of the gurney in a proper position." Thus, this fact was established by the pleadings.

> his facial orifices, and coughing and choking on his own blood.
>
> 129. In order to fully evaluate and establish the risks to Mr. Bucklew from execution by lethal injection, a full and complete set of imaging studies must be conducted.
>
> 139. Mr. Bucklew is mindful of the Court's directive to allege a feasible, readily implemented alternative procedure. . . . Mr. Bucklew has complied . . . by researching and proposing execution by lethal gas, which is specifically authorized by Missouri law and which Missouri's Attorney General has stated the DOC is prepared to implement.
>
> 150. In adherence with the pleading requirements set forth in *Glossip*, and as stated above, Mr. Bucklew specifically alleges lethal gas as a feasible and available alternative method that will significantly reduce the risk of severe pain to Mr. Bucklew.

In other words, Bucklew took the position that no modification of Missouri's lethal injection method of execution could be constitutionally applied to execute Bucklew. He proposed massive discovery allegedly needed to establish the first *Baze/Glossip* requirement. But his legal theory is that alternative procedures such as adjusting the gurney's position are irrelevant because *no* lethal injection procedure would be constitutional, only a change to the use of lethal gas would be adequate.

Bucklew's as-applied claim focused on two aspects of his medical condition. First, Bucklew's experts initially opined that his peripheral veins are so weak that injection of a lethal dose of pentobarbital would

not adequately circulate, leading to a prolonged and painful execution. The district court concluded that discovery and expert opinions developed on remand refuted this claim. The lethal injection protocol provides that medical personnel may insert the primary intravenous (IV) line "as a central venous line" and may dispense with a secondary peripheral IV line if "the prisoner's physical condition makes it unduly difficult to insert more than one IV." Bucklew's expert Dr. Zivot conceded, and Defendants' expert, Dr. Joseph Antognini, agreed, that the central femoral vein can circulate a "fair amount of fluid" without serious risk of rupture and that Bucklew's medical condition will not affect the flow of pentobarbital after it is injected through this vein.

Second, Bucklew's experts opined that his condition will cause him to experience severe choking and suffocation during execution by lethal injection. When Bucklew is supine, gravity pulls the hemangioma tumor into his throat which causes his breathing to be labored and the tumor to rupture and bleed. When conscious, Bucklew can "adjust" his breathing with repeated swallowing that prevents the tumor from blocking his airway. But during the "twilight stage" of a lethal injection execution, Dr. Zivot opined that Bucklew will be aware he is choking on his own blood and in pain before the pentobarbital renders him unconscious and unaware of pain. Based on a study of lethal injections in horses, Dr. Zivot estimated there could be a period as short as 52 seconds and as long as 240 seconds when Bucklew is conscious but immobile and unable to adjust his breathing; his attempts to breath will create friction, causing the tumor to bleed and possibly hemorrhage. In Dr. Zivot's opinion, there is a "very, very high likelihood" that Bucklew will suffer "choking complications, including visible

hemorrhaging," if he is executed by *any* means of lethal injection, including using the drug pentobarbital.

According to Defendants' expert, Dr. Antognini, pentobarbital causes death by "producing rapid, deep unconscious[ness], respiratory depression, followed by . . . complete absence of respiration, decreased oxygen levels, slowing of the heart, and then the heart stopping." In contrast to Dr. Zivot, Dr. Antognini opined that pentobarbital would cause "rapid and deep unconsciousness" within 20-30 seconds of entering Bucklew's blood stream, rendering him insensate to bleeding and choking sensations. Dr. Antognini also challenged Dr. Zivot's opinion that a supine Bucklew, unable to adjust his breathing, will be aware he is choking on his own blood and in pain from the tumor blocking his airway before the pentobarbital renders him unconscious. Dr. Antognini noted that, between 2000 and 2003, Bucklew underwent general anesthesia eight times, at least once in a supine position. In December 2016, Bucklew lay supine for over an hour undergoing an MRI, with no more than discomfort. The MRI revealed that his tumor had slightly shrunk since 2010.

In granting defendants summary judgment, the district court declined to rely on the first *Glossip/Baze* requirement because these conflicting expert opinions "would permit a factfinder to conclude that for as long as four minutes [after the injection of pentobarbital Bucklew] could be aware that he is choking or unable to breathe but be unable [to] 'adjust' his breathing to remedy the situation." Rather, the court held that Bucklew failed to provide adequate evidence that his alternative method of execution—lethal gas—was a "feasible, readily implemented" alternative that would

"in fact significantly reduce a substantial risk of severe pain" as compared to lethal injection. *Glossip*, 135 S.Ct. at 2737; *Baze*, 553 U.S. at 52, 128 S.Ct. 1520.

III.

To succeed in his challenge to Missouri's lethal injection execution protocol, Bucklew must establish both prongs of the *Glossip/Baze* standard. *Glossip*, 135 S. Ct. at 2737. The district court held that Bucklew failed to establish the second prong of *Glossip/Baze* by showing that an alternative method of execution would "in fact significantly reduce a substantial risk of severe pain." As noted, Bucklew argues the *Glossip/Baze* standard should not apply to an as-applied challenge to a method of execution, an argument our controlling precedents have rejected. He raises two additional issues on appeal.

A. Bucklew first argues the district court erred in granting summary judgment on the second *Glossip/Baze* requirement because he presented sufficient evidence that his proposed alternative method of execution—death through nitrogen gas-induced hypoxia—"would substantially reduce his suffering." Summary judgment is not appropriate when there are material issues of disputed fact, and the Supreme Court in *Glossip* made clear that this issue may require findings of fact that are reviewed for clear error. *See* 135 S.Ct. at 2739-41 (majority opinion) and 2786 (Sotomayor, J., dissenting). However, whether a method of execution "constitutes cruel and unusual punishment is a question of law." *Swindler v. Lockhart*, 885 F.2d 1342, 1350 (8th Cir. 1989). Thus, unless there are material underlying issues of disputed fact, it is appropriate to resolve this ultimate issue of law by summary judgment.

Nitrogen hypoxia is an authorized method of execution under Missouri Law. *See* Mo. Stat. Ann. § 546.720. Missouri has not used this method of execution since 1965 and does not currently have a protocol in place for execution by lethal gas. But there are ongoing studies of the method in other States and at least preliminary indications that Missouri will undertake to develop a protocol. Defendants do not argue this is not a feasible and available alternative.

The district court granted summary judgment based on Bucklew's failure to provide adequate evidence that execution by nitrogen hypoxia would substantially reduce the risk of pain or suffering. The court allowed Bucklew extensive discovery into defendants' knowledge regarding execution by lethal gas. But Missouri's lack of recent experience meant that this discovery produced little relevant evidence and no evidence that the risk posed by lethal injection is substantial *when compared to* the risk posed by lethal gas. *See Glossip*, 135 S.Ct. at 2738; *Johnson*, 809 F.3d at 391. Bucklew's *theory* is that execution by nitrogen hypoxia would render Bucklew insensate more quickly than lethal injection and would not cause choking and bleeding in his tumor-blocked airway. But his expert, Dr. Zivot, provided no support for this theory. Dr. Zivot's Supplemental Expert Report explained:

> [W]hile I can assess Mr. Bucklew's current medical status and render an expert opinion as to the documented and significant risks associated with executing Mr. Bucklew under Missouri's current Execution Procedure, I cannot advise counsel or the Court on how to execute Mr. Bucklew in a way that would satisfy Constitutional requirements.

Lacking affirmative comparative evidence, Bucklew relied on Dr. Antognini's deposition. In his Expert Report, Dr. Antognini concluded that "the use of lethal gas would not significantly lessen any suffering or be less painful than lethal injection in this inmate." At his deposition, Dr. Antognini was asked:

> Q. Why does lethal gas not hold any advantage compared to lethal injection.
>
> A. Well . . . there are a lot of types of gases that could be used . . . . [U]sing gas would not significantly lessen any suffering or be less painful. Because, again, their onset of action is going to be relatively fast, just like Pentobarbital's onset—onset of action.
>
> Q. That's it? Simply because it would happen quickly?
>
> A. Correct.

The district court concluded this opinion provided nothing to compare:

> Dr. Antognini specifically stated that he believed there would be no difference in the "speed" of lethal gas as compared to pentobarbital. . . . In the absence of evidence contradicting Defendants' expert and supporting Plaintiff's theory, there is not a triable issue.

On appeal, Bucklew argues the district court should have compared Dr. Zivot's opinion that lethal injection would take up to four minutes to cause Bucklew's brain death with Dr. Antognini's testimony that lethal gas would render him unconscious in the same amount of time as lethal injection, 20 to 30 seconds. But Dr. Antognini's comparative testimony was that both

methods would result in unconsciousness in approximately the same amount of time. Bucklew offered no contrary *comparative* evidence and thus the district court correctly concluded that he failed to satisfy his burden to provide evidence "establishing a known and available alternative that would significantly reduce a substantial risk of severe pain." *McGehee v. Hutchinson*, 854 F.3d 488, 493 (8th Cir. 2017).

In addition, Bucklew's claim that he will experience choking sensations during an execution by lethal injection but not by nitrogen hypoxia rests on the proposition that he could be seated during the latter but not the former. He argues there is evidence he will be forced to remain supine during an execution by lethal injection, when his tumor will cause him to sense he is choking on his own blood, whereas he could remain seated during the administration of lethal gas, which would not cause a choking sensation. But this argument lacks factual support in the record. Having taken the position that *any* lethal injection procedure would violate the Eighth Amendment, Bucklew made no effort to determine what changes, if any, the DOC would make in applying its lethal injection protocol in executing Bucklew, other than defendants advising—prior to remand by this court—that dye would not be used.

Based on Bucklew's argument to the en banc court, we expected that the core of the proceedings on remand would be defining what changes defendants would make on account of Bucklew's medical condition and then evaluating *that modified procedure* under the two-part *Baze/Glossip* standard. On remand, Director of Corrections Ann Precythe testified that the medical members of the execution team are provided a prisoner's medical history in preparing for the

execution. Precythe has authority to make changes in the execution protocol, such as how the primary IV line will be inserted in the central femoral vein or how the gurney will be positioned, if the team advises that changes are needed. While Bucklew sought and was denied discovery of the identities of the execution team's medical members, he never urged the district court to establish a suitable fact-finding procedure—for example, by anonymous interrogatories or written deposition questions to the execution team members—for discovery of facts needed for the DOC to define the as-applied lethal injection protocol it intends to use for Bucklew. As Bucklew did not pursue these issues, the pleadings established that defendants have proposed to reposition the gurney during Bucklew's deposition, and Director Precythe testified that she has authority to make this type of change in the execution protocol based on the execution team's advice based on review of Bucklew's medical history, but the record does not disclose whether Bucklew will in fact be supine during the execution,[4] nor does it disclose that a "cut-down" procedure will not be used to place the primary IV line in his central femoral vein, a procedure Dr. Antognini opined was unnecessary. Bucklew simply asserts that, in comparing execution by lethal injection and by lethal gas, we must accept his speculation that

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[4] Dr. Zivot surmised that Bucklew will be required to lie flat during lethal injection based on what he observed at an execution in Georgia. He gave no reason to believe that pentobarbital could not be injected through a femoral vein while Bucklew is seated. He merely opined that "[i]t's more difficult" to administer an anesthetic to someone who is sitting up. Dr. Antognini, in addition to opining that Bucklew would be rendered unconscious and insensate within 20 to 30 seconds of pentobarbital injection, noted that it was not necessary that Bucklew be supine in order to inject pentobarbital in his femoral vein.

defendants will employ these risk-increasing procedures. This we will not do.

Like the district court, we conclude the summary judgment record contains no basis to conclude that Bucklew's risk of severe pain would be substantially reduced by use of nitrogen hypoxia instead of lethal injection as the method of execution. Evidence that "is equivocal, lacks scientific consensus and presents a paucity of reliable scientific evidence" does not establish that an execution is sure or very likely to cause serious illness and needless suffering. *Williams v. Kelley*, 854 F.3d at 1001 (quotation omitted). Therefore, he failed to establish the second prong of the *Glossip/Baze* standard.

B. Bucklew further contends the district court erred in denying his requests for discovery relating to "M2" and "M3," two members of the lethal injection execution team. Bucklew argues he was entitled to discovery of the medical technicians' qualifications, training, and experience because it would "illuminate the nature and extent of the risks of suffering he faces." For example, if M3 was not qualified to safely place his IV in the central femoral vein, this would directly impact the risk of pain and suffering. We review a district court's discovery rulings narrowly and with great deference and will reverse only for a "gross abuse of discretion resulting in fundamental unfairness." *Marksmeier v. Davie*, 622 F.3d 896, 903 (8th Cir. 2010).

Bucklew's argument proceeds from the premise that M2 and M3 may not be qualified for the positions for which they have been hired. But we will not assume that Missouri employs personnel who are incompetent or unqualified to perform their assigned duties. *See Clemons v. Crawford*, 585 F.3d 1119, 1128 (8th Cir.

2009). He further argues that deposition of M2 and M3 is necessary to understand how they will handle a circumstance in case something goes wrong during Bucklew's execution. The potentiality that something may go wrong in an execution does not give rise to an Eighth Amendment violation. *Zink*, 783 F.3d at 1101. "Some risk of pain is inherent in any method of execution—no matter how humane—if only from the prospect of error in following the required procedure . . . . [A]n isolated mishap alone does not give rise to an Eighth Amendment violation." *Baze*, 553 U.S. at 47, 50, 128 S.Ct. 1520. Thus, the district court's ruling was consistent with our instruction in remanding that Bucklew "may not be permitted to supervise every step of the execution process." *Bucklew I*, 783 F.3d at 1128 (quotation omitted). The *Baze/Glossip* evaluation must be based on the as-applied pre-execution protocol, assuming that those responsible for carrying out the sentence are competent and qualified to do so, and that the procedure will go as intended.

III. Conclusion

Having thoroughly reviewed the record, we conclude that Bucklew has failed to establish that lethal injection, as applied to him, constitutes cruel and unusual punishment under the Eighth and Fourteenth Amendments. Therefore, we affirm the judgment of the district court.

COLLOTON, Circuit Judge, dissenting.

Russell Bucklew alleges that the State of Missouri's method of execution by lethal injection violates his rights under the Eighth and Fourteenth Amendments. He seeks an injunction prohibiting an execution by that method. The district court granted summary judgment for the State, but there are genuine disputes of material fact that require findings of fact by the district court before this dispute can be resolved. I would therefore remand the case for the district court promptly to conduct further proceedings.

Bucklew's claim under 42 U.S.C. § 1983 requires him to prove two elements: (1) that the State's method of execution is sure or very likely to cause him severe pain, and (2) that an alternative method of execution that is feasible and readily implemented would significantly reduce the substantial risk of severe pain. *Glossip v. Gross*, —— U.S. ——, 135 S.Ct. 2726, 2737, 192 L.Ed.2d 761 (2015); *Bucklew v. Lombardi*, 783 F.3d 1120, 1123, 1128 (8th Cir. 2015) (en banc). On the first element, the district court concluded that taking the evidence in the light most favorable to Bucklew, there is a substantial risk under Missouri's lethal injection protocol that Bucklew will experience choking and an inability to breathe for up to four minutes. On the second element, however, the court ruled as a matter of law that Bucklew's suggested alternative method—execution by administration of nitrogen gas—would not significantly reduce the substantial risk that the court identified under the first element. In my view, the district court's reasoning as to the first element is inconsistent with its summary disposition of Bucklew's claim on the second.

On the first element, Bucklew's theory is that he will suffer severe pain by prolonged choking or suffocation

if the State executes him by lethal injection. He contends that when he lies supine on the execution gurney, tumors in his throat will block his airway unless he can "adjust" his positioning to enable breathing. Bucklew argues that if an injection of pentobarbital renders him unable to adjust his positioning while he can still sense pain, then he will choke or suffocate.

In assessing that claim, the district court cited conflicting expert testimony from Bucklew's expert, Dr. Joel Zivot, and the State's expert, Dr. Joseph Antognini. Dr. Antognini testified that if the State proceeded by way of lethal injection using pentobarbital, then Bucklew would be unconscious within twenty to thirty seconds and incapable of experiencing pain at that point. R. Doc. 182-5, at 10, 40-41. Dr. Zivot, however, differed: "I strongly disagree with Dr. Antognini's repeated claim that the pentobarbital injection would result in 'rapid unconsciousness' and therefore Mr. Bucklew would not experience any suffocating or choking." R. Doc. 182-1, at 147. Zivot opined that Bucklew "would likely experience unconsciousness that sets in progressively as the chemical circulates through his system," and that "during this in-between twilight stage," Bucklew "is likely to experience prolonged feelings of suffocation and excruciating pain." *Id.*

In his deposition, Dr. Zivot opined that "there will be points," before Bucklew dies, "where he's beginning to experience the effects of the pentobarbital, where his ability to control and regulate and adjust his airway will be impaired, although there will still be the experience capable of knowing that he cannot make the adjustment, and will experience it as choking." *Id.* at 81. When directed to Dr. Antognini's opinion that Bucklew would be unaware of noxious

stimuli within twenty to thirty seconds of a pentobarbital injection, Dr. Zivot observed that Antognini's opinion was based on a study involving dogs from fifty years ago and testified that his "number would be longer than that." *Id.* at 85. When asked for his "number," Dr. Zivot pointed to a study on lethal injections administered to horses; he said the study recorded "a range of as short as fifty-two seconds and as long as about two hundred and forty seconds before they see isoelectric EEG." *Id.* at 85-86. Dr. Zivot noted that the "number" that he derived from the horse study was "more than twice as long as" the number suggested by Dr. Antognini. *Id.* at 86. He defined "isoelectric EEG" as "indicative of at least electrical silence on the parts of the brain that the electroencephalogram has access to." *Id.*

The district court observed that "[a]n execution is typically conducted with the prisoner lying on his back," and that the record "establishes that [Bucklew] has difficulty breathing while in that position because the tumors can cause choking or an inability to breathe." The court understood Dr. Zivot to mean that "it could be fifty-two to 240 seconds before the pentobarbital induces a state in which [Bucklew] could no longer sense that he is choking or unable to breathe." Thus, the court concluded that "construing the Record in [Bucklew's] favor reveals that it could be fifty-two to 240 seconds before the pentobarbital induces a state in which [Bucklew] could no longer sense that he is choking or unable to breathe." Again, the court reasoned that "the facts construed in [Bucklew's] favor would permit a factfinder to conclude that for as long as four minutes [Bucklew] could be aware that he is choking or unable to breathe but be unable to 'adjust' his breathing to remedy the situation." On that basis, the court presumed for purposes of the motion for

summary judgment that "there is a substantial risk that [Bucklew] will experience choking and an inability to breathe for up to four minutes."

The State disputes that there is a genuine dispute of material fact on the first element of Bucklew's claim, but the district court properly concluded that findings of fact were required. Bucklew pointed to evidence from Missouri corrections officials that prisoners have always laid flat on their backs during executions by lethal injection in Missouri. R. Doc. 182-7, at 10; R. Doc. 182-9, at 1; R. Doc. 182-12, at 29, 91. One official testified that he did not know whether the gurney could be adjusted. R. Doc. 182-12, at 91. Another official believed that the head of the gurney "could" be raised (or that a gurney with that capability could be acquired), and that an anesthesiologist would have "the freedom" to adjust the gurney "if" he or she determined that it would be in the best medical interest of the offender to do so. R. Doc. 182-7, at 14. But the State did not present evidence about how it would position Bucklew or the gurney during his execution. On a motion for summary judgment, the district court was required to construe the evidence in the light most favorable to Bucklew. Under that standard, without undisputed evidence from the State that it would alter its ordinary procedures, the court did not err by concluding that a finder of fact could infer that the State would proceed as in all other executions, with Bucklew lying on his back.[5]

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[5] Bucklew alleged in Paragraph 128 of his complaint that the State had offered to adjust the gurney so that Bucklew is not lying completely prone, but then continued as follows immediately thereafter: "Although the stated intent was to reduce the choking risk to Mr. Bucklew, the DOC has obtained no imaging studies of Mr. Bucklew since 2010, and therefore has no information on

The State argues that the district court erred in discerning a genuine dispute of material fact on the first element because Dr. Zivot did not specify the length of the expected "twilight stage" during which Bucklew would be unable to adjust his positioning yet still sense pain. The State also complains that Dr. Zivot did not specify that Bucklew's pain awareness would continue for fifty-two seconds or longer until brain waves ceased. There certainly are grounds to attack the reliability and credibility of Dr. Zivot's opinion, including the imprecision of some of his testimony, his opposition to all forms of lethal injection, his possible misreading of the horse study on which he partially relied, and his inaccurate predictions of calamities at prior executions. But he did opine that Bucklew was likely to "experience prolonged feelings of suffocation and excruciating pain" if executed by lethal injection, R. Doc. 182-1, at 147, and that there "will be points" before Bucklew dies when his ability to regulate his airway will be impaired so that he "will experience it as choking." *Id.* at 81. The district court did not err in concluding that it could not resolve the dispute between the experts on summary judgment.

On the second element of Bucklew's claim, the district court concluded as a matter of law that Bucklew failed to show that his proposed alternative method of execution—administration of nitrogen gas—would

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which to base any decisions about the angle of the gurney." R. Doc. 53, at 43-44. The district court noted the State's suggestion "that the execution could be performed with [Bucklew] in a different position," but explained that "there is no evidence whether this has an effect on the procedure as a whole," and concluded that the State had "not provided the Court with a basis for granting summary judgment based on the possibility of performing the execution with [Bucklew] in a sitting (or other) position."

significantly reduce the substantial risk of severe pain that the court recognized under the first element. The majority affirms the district court's judgment on this basis. Taking the evidence in the light most favorable to Bucklew, however, a factfinder could conclude that nitrogen gas would render Bucklew insensate more quickly than pentobarbital and would thus eliminate the risk that he would experience prolonged feelings of choking or suffocation. Dr. Antognini testified that a person who is administered nitrogen gas "would be unconscious very quickly," and that the onset of action from lethal gas "is going to be relatively fast, *just like Pentobarbital's onset*." R. Doc. 182-5, at 58-59 (emphasis added). Given Dr. Antognini's testimony that pentobarbital would render Bucklew insensate within twenty to thirty seconds, the record in the light most favorable to Bucklew supports a finding based on Antognini's testimony that nitrogen gas would relieve Bucklew from any pain of choking or suffocating within twenty to thirty seconds. A trier of fact may accept all, some, or none of a witness's testimony, *United States v. Candie*, 974 F.2d 61, 65 (8th Cir. 1992), and a plaintiff may rely on testimony from the defendant's expert to meet his burden if the testimony is advantageous to the plaintiff. *See IBEW Local 98 Pension Fund v. Best Buy Co., Inc.*, 818 F.3d 775, 782 (8th Cir. 2016). If the factfinder accepted Dr. Zivot's testimony as to the effect of pentobarbital, and Dr. Antognini's uncontroverted testimony as to effect of nitrogen gas, then Bucklew's proposed alternative method would significantly reduce the substantial risk of severe pain that the district court identified in its analysis of the first element.

For these reasons, there are genuine disputes of material fact that preclude summary judgment and require findings of fact by the district court. I would

therefore remand the case for further proceedings. The district court may then promptly make appropriate factual findings about, among other things, how Bucklew will be positioned during an execution, whether his airway will be blocked during an execution, and how pentobarbital (and, if necessary, nitrogen gas) will affect his consciousness and ability to sense potential pain.

* * *

The State contends that we should not reach the merits of Bucklew's claim because several procedural obstacles require dismissal of his complaint. The majority does not rely on these points, and I find them unavailing.

First, the State contends that Bucklew did not raise his present claim in his fourth amended complaint. Bucklew's complaint, however, does allege the essence of his current theory. The complaint asserts that the tumors in Bucklew's throat require "him to sleep with his upper body elevated" because if he lies flat, "the tumor then fully obstructs his airway." *Id.* at 18-19. It continued: "Executions are conducted on a gurney, and the risks arising from Mr. Bucklew's airway are even greater if he is lying flat. Because of the hemangiomas, Mr. Bucklew is unable to sleep in a normal recumbent position because the tumors cause greater obstruction in that position." R. Doc. 53, at 35. Bucklew further alleged that execution by lethal injection "poses an enormous risk that Mr. Bucklew will suffer extreme, excruciating and prolonged pain – all accompanied by choking and struggling for air." *Id.* at 36. The complaint was adequate under a notice pleading regime to raise a claim that the execution procedure would result in an obstructed airway and choking or suffocation.

If necessary, moreover, the district court acted within its discretion by treating the complaint as impliedly amended to include Bucklew's present claim. *See* Fed. R. Civ. P. 15(b)(2). Bucklew clearly notified the State of his contention in his opposition to the State's motion for summary judgment. R. Doc. 192-1, at 1-3, 11-17. Yet rather than communicate surprise and object that the claim was not pleaded, the State addressed Bucklew's contention on the merits. R. Doc. 200, at 4-5. Where a party has actual notice of an unpleaded issue and has been given an adequate opportunity to cure any surprise resulting from a change in the pleadings, there is implied consent to an amendment. *Trip Mate, Inc. v. Stonebridge Cas. Ins. Co.*, 768 F.3d 779, 784-85 (8th Cir. 2014).

Second, the State argues that the five-year statute of limitations bars Bucklew's claim, because he was aware of his claim in 2008 and did not file his complaint until May 9, 2014. A claim under § 1983 accrues when a plaintiff has "a complete and present cause of action" and "can file suit and obtain relief." *Wallace v. Kato*, 549 U.S. 384, 388, 127 S.Ct. 1091, 166 L.Ed.2d 973 (2007) (quoting *Bay Area Laundry & Dry Cleaning Pension Trust Fund v. Ferbar Corp. of Cal.*, 522 U.S. 192, 201, 118 S.Ct. 542, 139 L.Ed.2d 553 (1997)). Bucklew asserts that he did not have knowledge of his present claim, and therefore could not have filed suit and obtained relief, until his medical condition progressed and he was examined by Dr. Zivot in April 2014. As evidence that Bucklew could have brought his claim earlier, the State relies on a 2008 petition that Bucklew submitted to the Missouri Supreme Court. The petition sought funding for an expert witness to investigate the interaction of the State's existing execution protocol with Bucklew's health condition. The possible claim addressed in the

2008 funding petition, however, focused on the potential for uncontrolled bleeding and ineffective circulation of drugs within Bucklew's body under the State's former three-drug execution protocol. The petition does not demonstrate that Bucklew was then on notice of a claim that a future execution protocol using the single drug pentobarbital would create a substantial risk of severe pain resulting from tumors blocking his airway while laying supine during an execution.

Third, the State urges that Bucklew's claim is barred by *res judicata* or claim preclusion, because Bucklew could have litigated his as-applied challenge to the execution protocol in an earlier case styled *Zink v. Lombardi*, No. 12-04209-CV-C-BP. In *Zink*, a group of inmates sentenced to death, including Bucklew, brought a facial challenge to Missouri's execution protocol. A complaint was filed in August 2012, and the eventual deadline for motions to amend pleadings was January 27, 2014. Principles of claim preclusion do not bar Bucklew's as-applied challenge if he was unaware of the basis for the claim in time to include it in the *Zink* litigation. *See Whole Woman's Health v. Hellerstedt*, —— U.S. ——, 136 S.Ct. 2292, 2305, 195 L.Ed.2d 665 (2016). The State again points to Bucklew's 2008 funding petition in support of its preclusion defense, but for reasons discussed, that petition does not establish that Bucklew's present claim was available to him in 2008. At oral argument, the State argued that Bucklew could have added his as-applied challenge to the *Zink* litigation after he was examined by Dr. Zivot in April 2014, because the district court granted the *Zink* plaintiffs leave to amend their complaint in May 2014. But the court's order allowed the *Zink* plaintiffs leave to amend only a single count of the complaint to allege a feasible

alternative method of execution. The order did not reopen the pleadings deadline for as-applied claims by the several individual plaintiffs. *See Zink v. Lombardi*, No. 12-04209-CV-C-BP, 2014 WL 11309998, at *4-5, 12 (W.D. Mo. May 2, 2014). The State therefore has not established that Bucklew's as-applied claim is barred by *res judicata*.

* * *

For these reasons, I would reverse the judgment of the district court and remand for further proceedings to be conducted with dispatch.

AFFIDAVIT OF ALANA BOYLES

I, Alana Boyles, being first duly sworn, states [sic] as follows:

1. I am over 18 years of age and competent to make this statement.
2. I am currently employed as Director of the Division of Adult Institutions and have been so employed since May 1, 2017.
3. As the Director of the Division of Adult Institutions, I am responsible for the general supervision, management and control of the division. As a part of my duties I have personal knowledge of the Department's execution protocols and the facilities used to execute those protocols.
4. When the Department executes an offender, the offender lies on an adjustable gurney. The top portion of the gurney can be positioned at various degrees of inclination ranging from fully upright to completely reclined.
5. In carrying out the Missouri Supreme Court's order to execute Russell Bucklew, the Department will adjust the gurney so that Mr. Bucklew is not lying fully supine at the time the Department administers the lethal chemicals.

FURTHER AFFIANT SAYETH NOT.

/s/ Alana Boyles
Alana Boyles

Subscribed and sworn before me, a Notary Public in and for said County and State, on this 9th day of March 2018.

/s/ Teresa A. Wehmeyer
Notary Public

My commission expires:

[Notary Seal] TERESA A. WEHMEYER
Notary Public – Notary Seal
STATE OF MISSOURI
County of Cole
My Commission Expires: 2/07/2022
Commission #14932654

UNITED STATES COURT OF APPEALS,
EIGHTH CIRCUIT

No: 17-3052

RUSSELL BUCKLEW,

Appellant,

v.

ANNE L. PRECYTHE, DIRECTOR OF THE DEPARTMENT OF CORRECTIONS, *et al.*,

Appellees.

March 15, 2018

Appeal from U.S. District Court for the Western District of Missouri—Kansas City, (4:14-cv-8000-BP)

ORDER

Before SMITH, Chief Judge, WOLLMAN, LOKEN, COLLOTON, GRUENDER, SHEPHERD, KELLY, ERICKSON, GRASZ and STRAS, Circuit Judges.

Appellant Bucklew's petition for rehearing by panel is denied. Judge Colloton would grant the petition for rehearing by panel.

Appellant Bucklew's petition for rehearing en banc has been considered by the court and the petition is denied. Chief Judge Smith and Judge Kelly would grant the petition. Judge Colloton and Judge Gruender

would grant rehearing en banc on Point I of the petition for rehearing en banc.

Judge Duane Benton took no part in the consideration or decision of the petition for rehearing en banc.

KELLY, Circuit Judge, dissenting from the denial of the petition for rehearing en banc.

I would grant Russell Bucklew's petition for rehearing en banc—and reverse the district court's grant of summary judgment—for the reasons stated in the dissent from the panel opinion in this case. *See Bucklew v. Precythe*, 883 F.3d 1087, 1096–97, 2018 WL 1163360, at *7 (8th Cir. 2018) (Colloton, J., dissenting). I would also grant Bucklew's petition to the extent it seeks reconsideration of this court's conclusion, in *Bucklew v. Lombardi*, 783 F.3d 1120, 1128 (8th Cir. 2015) (en banc), that those sentenced to death must plead a "feasible, readily implemented alternative procedure" for carrying out their sentence in order to state a plausible as-applied claim under the Eighth Amendment. I continue to believe that "[f]acial and as-applied challenges to execution protocols are different," that death row inmates "need not plead a readily available alternative method of execution" to bring an as-applied challenge, and that "[a] state cannot be excused from taking into account a particular inmate's existing physical disability or health condition when assessing the propriety of its execution method." *See id.* at 1129 (Bye, J., concurring in the result). "While the Supreme Court has been clear on the general proposition that, so long as a state-imposed death penalty is constitutional, there must be some way for states to carry out executions, the Supreme Court has also been clear that some individuals cannot be executed." *Id.* at 1130 (collecting cases); *see also Madison v. Alabama*, —— U.S. ——,

138 S.Ct. ——, —— L.Ed.2d ——, 2018 WL 514241 (Feb. 26, 2018); *Dunn v. Madison*, —— U.S. ——, 138 S.Ct. 9, 12, 199 L.Ed.2d 243 (2017) (Ginsburg, J., concurring). In my view, neither *Glossip v. Gross*, —— U.S. ——, 135 S.Ct. 2726, 192 L.Ed.2d 761 (2015), nor any subsequent case from the United States Supreme Court dictates the result this court reached on this issue in *Bucklew v. Lombardi*, 783 F.3d 1120 (8th Cir. 2015) (en banc).

UNITED STATES COURT OF APPEALS
FOR THE EIGHTH CIRCUIT

No: 17-3052

RUSSELL BUCKLEW,

Appellant

v.

ANNE L. PRECYTHE,
Director of the Department of Corrections, et al.

Appellees

Appeal from U.S. District Court for the Western District of Missouri - Kansas City
(4:14-cv-8000-BP)

ORDER

Before WOLLMAN, LOKEN, and COLLOTON, Circuit Judges.

Bucklew's motion for stay of execution has been considered by the court and is denied.

Order Entered at the Direction of the Court:
Clerk, U.S. Court of Appeals, Eighth Circuit.

/s/ Michael E. Gans

March 15, 2018

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No. 17-8151

IN THE

Supreme Court of the United States

RUSSELL BUCKLEW,

Petitioner,

v.

ANNE PRECYTHE, *et al.*,

Respondents.

On Writ of Certiorari to the United States Court of Appeals for the Eighth Circuit

AMENDED UNOPPOSED MOTION FOR LEAVE TO FILE JOINT APPENDIX—VOLUME III UNDER SEAL

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August 14, 2018

AMENDED UNOPPOSED MOTION FOR LEAVE TO FILE JOINT APPENDIX—VOLUME III UNDER SEAL

Petitioner Russell Bucklew ("Bucklew") respectfully requests leave to file Volume III of the Joint Appendix under seal. Volume III of the Joint Appendix contains copies or descriptions of records that were filed under seal in the Western District of Missouri and Eighth Circuit Court of Appeals, pursuant to a Protective Order entered in the district court on December 28, 2016 (Dkt. 139), as modified on March 1, 2018 (Dkt. 228). To maintain the confidentiality of those records, which contain non-public information concerning Missouri's execution procedures, Bucklew requests leave to file Volume III of the Joint Appendix under seal. Respondents do not oppose Bucklew's motion.

Volume III of the Joint Appendix contains a transcript of a telephonic hearing held on July 24, 2017. A redacted version of that transcript, as it appears on the publicly available docket in the Western District of Missouri, is attached hereto.

Dated: August 14, 2018

Respectfully submitted,

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No. 17-8151

IN THE

Supreme Court of the United States

RUSSELL BUCKLEW,

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v.

ANNE PRECYTHE, *et al.*,

Respondent.

On Writ of Certiorari to the United States Court of Appeals for the Eighth Circuit

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July 16, 2018

QUESTIONS PRESENTED

1. Should a court evaluating an as-applied challenge to a State's method of execution based on an inmate's rare and severe medical condition assume that medical personnel are competent to manage his condition and that the procedure will go as intended?

2. Does the Eighth Amendment require an inmate to prove an adequate alternative method of execution when raising an as-applied challenge to the State's proposed method of execution based on his rare and severe medical condition?

3. Must evidence comparing a State's proposed method of execution with an alternative proposed by an inmate be offered via a single witness, or should a court at summary judgment look to the record as a whole to determine whether a factfinder could conclude that the two methods significantly differ in the risks they pose to the inmate?

4. Whether petitioner met his burden under *Glossip v. Gross*, 135 S. Ct. 2726 (2015), to prove what procedures would be used to administer his proposed alternative method of execution, the severity and duration of pain likely to be produced, and how they compare to the State's method of execution.

PARTIES TO THE PROCEEDING

The Petitioner is Russell Bucklew. The Respondents are Anne L. Precythe, Alana Boyles,* and Troy Steele, personnel with the Missouri Department of Corrections. No party is a corporation.

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* Pursuant to Supreme Court Rule 35(3), Alana Boyles has been substituted for David Dormire, who was sued in his official capacity. J.A. 55. Boyles replaced Dormire as the Director of the Division of Adult Institutions at the Department of Corrections of the State of Missouri. J.A. 882.

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OPINIONS BELOW

The opinion of the Eighth Circuit Court of Appeals, J.A. 854–81, is reported at 883 F.3d 1087 (8th Cir. 2018). The opinion of the Western District of Missouri, J.A. 817–32, is not reported.

JURISDICTION

The Eighth Circuit Court of Appeals entered its judgment on March 6, 2018, J.A. 854, and denied Bucklew's petition for panel rehearing or rehearing en banc on March 15, 2018. J.A. 884. This Court has jurisdiction under 28 U.S.C. § 1254(1).

STATUTORY PROVISIONS INVOLVED

The Eighth Amendment of the U.S. Constitution provides that "[e]xcessive bail shall not be required, nor excessive fines imposed, nor cruel and unusual punishments inflicted." U.S. Const. amend. VIII.

Missouri's death penalty statute, Mo. Rev. Stat. § 546.720.1, provides in relevant part:

> The manner of inflicting the punishment of death shall be by the administration of lethal gas or by means of the administration of lethal injection. And for such purpose the director of the department of corrections is hereby authorized and directed to provide a suitable and efficient room or place, enclosed from public view, within the walls of a correctional facility of the department of corrections, and the necessary appliances for carrying into execution the death penalty by means of the administration of lethal gas or by means of the administration of lethal injection.

INTRODUCTION

This Court has long understood the Eighth Amendment to prohibit punishment that is needlessly cruel. *Wilkerson v. Utah*, 99 U.S. 130, 136 (1879) ("[P]unishments of torture . . . and all others in the same line of *unnecessary cruelty*, are forbidden by that amendment to the Constitution." (emphasis added)). This case is about the procedures our legal system will employ to ensure that executions carried out by the State do not violate that fundamental commitment.

Russell Bucklew suffers from a rare and degenerative condition that makes it very likely that his execution by Missouri's lethal injection protocol will be gruesome and involve excruciating suffering. In this case, he sued not to outlaw Missouri's lethal injection method of execution, but to prevent the State from applying it to him because of the unique risks that he faces from it. This Court has not considered an as-applied method-of-execution claim on the merits since its decisions in *Baze v. Rees*, 553 U.S. 35 (2008) (plurality opinion), and *Glossip v. Gross*, 135 S. Ct. 2726 (2015), set the legal standard for evaluating facial challenges to a method of execution. In rejecting Bucklew's claim, the Eighth Circuit badly misapplied the standards from those cases to circumstances for which they are ill-suited. If the Eighth Circuit's decision is allowed to stand, not only would this Court condemn Bucklew to needless suffering at the hands of the State, but it would also cripple the legal system's ability to prevent others from suffering the same fate.

First, the Eighth Circuit understood this Court's prior decisions to assume that Bucklew's execution will go as Missouri plans even when evaluating Bucklew's as-applied challenge to Missouri's method of execution. That ruling makes no sense. The heart of this claim is that Bucklew's medical condition creates

unique complications that all but guarantee his execution will not go as planned if Missouri follows its protocol. Respondents should and do know as much. The Eighth Circuit deployed its all-will-be-fine presumption to justify preventing Bucklew from taking discovery regarding the training and experience of the medical members of the execution team. They have substantial discretion in the execution chamber to make judgments that can substantially increase the suffering Bucklew experiences. The denial of discovery is inconsistent with basic fairness: because Bucklew bears the burden to establish the magnitude of risk he faces, he must be allowed to explore the medical team members' training and experience to identify and respond to his particular needs and risks. And beyond this case, such a rule bakes likely error into the litigation process, and would serve only to increase the frequency with which executions fail or result in avoidable and needless suffering.

Second, the Eighth Circuit imposed on Bucklew the burden to plead and prove a feasible and readily implemented alternative method of execution that will substantially reduce his risks. This Court developed the alternative-method requirement in response to concerns raised by the *facial* challenges to lethal injection execution protocols asserted in *Baze* and *Glossip*. Those concerns vanish in an *as-applied* challenge like Bucklew's. Nothing in Bucklew's claim suggests Missouri's lethal injection protocol cannot be applied to others; there is no risk that an as-applied claim will function as a back-door attack on the constitutionality of the death penalty. And an as-applied claim comes with a baseline—a healthy inmate—against which to compare the magnitude of the risk of suffering a medically fragile inmate faces

from a State's protocol in light of his condition. No value would be served by demanding that an inmate with a complicated medical condition custom-design his own execution.

Third, if this Court were to conclude that Bucklew must bear the burden to plead and prove an alternative method of execution, the Eighth Circuit improperly evaluated the record when it concluded that a lethal gas alternative would not substantially reduce the risks Bucklew faces. The Eighth Circuit failed both to consider the record as a whole, and to consider it in the light most favorable to Bucklew, as the summary judgment posture of the trial court's ruling required. And *finally*, the State never disputed that lethal gas is feasible and readily implemented, and there is ample reason in the record to believe that the State can develop a lethal gas protocol that would substantially reduce the risks Bucklew faces.

"The methods we employ in the enforcement of our criminal law have aptly been called the measures by which the quality of our civilization may be judged." *Coppedge v. United States*, 369 U.S. 438, 449 (1962). That is especially true of our methods of execution. Whatever one thinks of the propriety of executions in general, all can agree that identifying predictable cruelty in carrying out the death penalty and taking appropriate steps to avoid it is a basic commitment of a civilized society. The "basic concept underlying the Eighth Amendment is nothing less than the dignity of man." *Trop v. Dulles*, 356 U.S. 86, 100 (1958) (plurality opinion). By reversing the Eighth Circuit's decision, and establishing appropriate procedures and standards for as-applied method-of-execution claims, this Court will better equip our judicial system to protect the basic human dignity not only of inmates like Bucklew, but also of state officials and of society

itself, neither of which have any interest in inflicting cruel punishments on inmates.

STATEMENT OF THE CASE

In 1998, Bucklew was convicted of first degree murder, kidnapping, burglary, forcible rape, and armed criminal action. He was sentenced to death. He does not challenge the validity of his conviction or death sentence.

A. Bucklew's Rare Medical Condition

Bucklew suffers from an exceedingly rare, progressive, and incurable medical condition—cavernous hemangioma—that causes inoperable, blood-filled tumors to grow in his throat and around his face, head, and neck. J.A. 857, 819–20, 220, 328, 648–49. Cavernous hemangiomas occur in only .2% of the general population, and cavernous hemangiomas in the oral cavity (affecting the lips, tongue, and palate) are prevalent in less than 1% of those who have cavernous hemangioma (only .002% of the general population). Minhua Wang et al., *Cavernous Hemangioma of the Uvula: Report a Rare Case with Literature Review*, 8 N. Am. J. of Med. & Sci. 56 (2015). A case like Bucklew's, involving the uvula, is "extremely rare." *Id.* at 56.

Bucklew's tumors are extremely sensitive and susceptible to rupture. J.A. 857. Merely touching his airway can cause his airway and uvula to leak blood. J.A. 225–26, 228–29. Indeed, the minor friction caused by activities as routine and seemingly innocuous as snoring and eating chips has caused the delicate tissue of Bucklew's airway and uvula to tear, causing Bucklew's tumors to bleed. Bucklew's treating physician deemed the risk of bleeding great enough to warrant giving Bucklew biohazard bags and gauze to

keep in his cell so that he may self-treat hemorrhages. J.A. 225–26; APP0466, 469.[1]

Bucklew's condition is progressive. As his tumors continue to grow, his risk of experiencing a catastrophic hemorrhage increases. J.A. 229, 647–48; APP0328. As of April 12, 2012, Bucklew was at a low risk of life-threatening hemorrhage. J.A. 644–45. But over the ensuing months, his treating physician observed that his hemangioma had grown, J.A. 647–48, and by January 2017, Bucklew's medical expert, Dr. Zivot, determined that his condition had significantly progressed to the point that his tumors posed an imminent risk of life-threatening hemorrhage, *see* J.A. 229.

Bucklew's "grossly enlarged uvula" partially obstructs his airway, making it difficult for him to breathe and causing him to choke and bleed. J.A. 226–27. Indeed, when Bucklew was put under general anesthesia during previous surgeries, he underwent a tracheotomy to ensure that his airway would remain secure during the procedures. J.A. 221, 224. Because of his grossly enlarged uvula, Bucklew's difficulty breathing is exacerbated when he lies supine. When lying supine, gravity pulls his enlarged uvula into the back of his throat, effectively blocking his airway. To prevent suffocation, he must consciously monitor and mechanically adjust his breathing to shift his uvula and permit airflow. So Bucklew sleeps on his right side and elevated by pillows at a 45-degree incline to avoid choking and hemorrhaging, and yet still experiences hemorrhages severe enough that he typically begins each morning by cleaning the blood off his face that

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[1] APP citations are from the Appendix to Brief, *Bucklew v. Lombardi*, No. 14-3052 (8th Cir. filed Dec. 1, 2017).

has leaked from his nose and mouth while he slept. J.A. 226–27.

Bucklew also has compromised peripheral veins in his hands and arms, which make his veins difficult to visualize. J.A. 857. Even after multiple attempts, setting an IV in Bucklew's arms would likely be extremely difficult if not impossible. J.A. 231; *see also* J.A. 332.[2]

B. Missouri's Execution Procedure

Missouri law authorizes execution by both lethal gas and lethal injection. Mo. Rev. Stat. § 546.720. Missouri has a written execution procedure for lethal injection only; it has none for lethal gas. Nonetheless, respondents have conceded that lethal gas is a feasible and readily implemented alternative to lethal injection in Missouri. J.A. 866.

The execution team. — The medical technicians responsible for the execution, who have been designated "M2" and "M3" to preserve their anonymity, have substantial discretion in the execution chamber. J.A. 595. They will not have examined or even met Bucklew before the execution. All they will know about Bucklew they will have learned from a single-page form. This form is not a complete medical record and is prepared by a

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[2] During the preparation of this brief, Bucklew suffered a life-threatening bout of bacterial meningitis. Bucklew was hospitalized for nearly two weeks. His airway collapsed, which caused him to be placed on a ventilator. Before his release from the hospital, Bucklew underwent a tracheotomy. The most recent information provided to counsel is that Bucklew's tracheostomy tube is still in place. Though Bucklew's most recent medical records are not part of the record on appeal, at the Court's request, counsel would provide to the Court any medical records it wishes to review.

Department of Corrections official, *not* the inmate's treating physician. J.A. 523–24; *see also* McKinney Dep. 20:12–20, 59:18–60:19 (noting that the form "is not a complete medical record" but instead a "summary" that is "not prepared by medical").[3]

At most, the one-page summary will indicate that further inquiry into Bucklew's history and condition is warranted, *see* McKinney Dep. 20:12–20, 59:18–60:19, but no such inquiry will be pursued. Indeed, the medical team will not be provided with any other medical records, including the MRI images that reveal the size of the tumors in Bucklew's airway, J.A. 528, and the team will not be able to consult with Bucklew's treating physician. J.A. 635–36.

Obtaining venous access. — The execution protocol gives the medical team substantial discretion to choose where to place IV lines to inject the lethal drug. The protocol authorizes accessing the vein via a central line, such as the femoral vein, but only if the medical personnel involved in the execution "have appropriate training, education, and experience for that procedure." J.A. 214. Not all state medical personnel, and indeed not all anesthesiologists, are qualified or skilled at performing a central line procedure, however. J.A. 336, 462.

In the past, after failing to gain peripheral vein access, medical members of the execution team have employed an outdated procedure known as a "cut-down" in the leg. J.A. 615–16. A cut-down involves slicing into the leg to visualize the vein; it is extremely painful. *See* J.A. 345. Sealed, sanitary packets with all of the instruments required for this procedure are available to the execution team. J.A. 616–18. Both Dr.

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[3] No. 4:14-cv-8000 (W.D. Mo. filed Apr. 10, 2017) (ECF 182-14) (*see* J.A. 9).

Zivot, Bucklew's medical expert, and Dr. Antognini, respondents' medical expert, agree that a "cut-down" is not the current preferred method of establishing central line access. J.A. 184, 350.

Positioning Bucklew during execution. — In all prior lethal injection executions performed under Missouri's current execution protocol, the inmate has been supine. J.A. 521, 544, 612. Based on this experience, there is every reason to expect that Bucklew will have to lie supine for a substantial period of time. Moreover, even outside the execution context, the record suggests that patients are often required to lie supine during a cut-down procedure. *See* J.A. 346. And, of course, Bucklew will be strapped to a gurney.

The summary judgment record lacks any evidence suggesting that respondents planned to position Bucklew any differently than other inmates. In response to Bucklew's petition for rehearing and motion for stay of execution before the court of appeals, however, respondents submitted a new affidavit from Alana Boyles to address this issue. Ms. Boyles—who was never previously identified by respondents and thus never deposed in the district court—asserted that "the Department will adjust the gurney so that Mr. Bucklew is not lying fully supine at the time the Department administers the lethal chemicals." J.A. 882. There is good reason to doubt that Ms. Boyles actually knows or has the authority to dictate how Bucklew will be positioned on the gurney in the execution chamber. Ms. Precythe, Ms. Boyles' superior, testified that she had no intention of modifying the execution protocol, J.A. 576, and that she would rely upon the execution team—understood to include the core team of individuals in the execution chamber—to make judgments as to how to handle Bucklew's unique medical condition. *See* J.A. 599–600.

Regardless, Ms. Boyles asserts only that Bucklew would not be "fully" supine "at the time the Department administers the lethal chemicals"—which is entirely consistent with forcing Bucklew to lie fully supine for the prolonged period of time *prior to* administration of the lethal chemicals.

Administration of lethal drug. — After the medical team gains venous access, a non-medical member of the execution team will inject the lethal drug. J.A. 214. Death does not follow immediately. After a "sufficient amount of time for death to occur," medical personnel will examine Bucklew to determine whether he is still breathing. If he is still breathing, a second round of chemicals will be administered. J.A. 215. If, after the second round of chemicals "the appropriate medical personnel cannot confirm that death has occurred," medical personnel will be directed to wait an "appropriate amount of time" to reevaluate Bucklew. *Id.* Death is expected after several minutes. J.A. 306, 526; *see also* J.A. 214–15.

C. The Known Risks Bucklew Faces From Lethal Injection In Missouri

Bucklew's execution will not go smoothly. He faces identifiable severe risks from the procedure both *before* and *after* the medical team gains venous access and the non-medical team begins to administer the lethal drug. It is undisputed that Bucklew will experience pain and suffering under Missouri's lethal injection protocol—the only questions are (1) for how long and (2) whether the State's imposition of prolonged suffering qualifies as cruel and unusual punishment. J.A. 470–72, 194–95, 197–99, 233–34.

1. Complications are likely to arise from the very beginning. Attempts to access Bucklew's peripheral veins will very likely fail, J.A. 231–32, but not before

medical personnel jab needles into Bucklew's arms. *See id.*; J.A. 183, 186–87, 350–51. These repeated failed efforts to gain venous access will increase Bucklew's pain and discomfort, resulting in physical manifestations of distress, including an increase in blood pressure and rate of breathing, which, in turn, is likely to cause his tumor to rupture. J.A. 183, 186–87, 232, 234–35, 351. Bleeding from the tumor in his throat will, of course, create further difficulties breathing. J.A. 234–35. And this is true regardless of whether Bucklew is lying flat or sitting upright while the technicians poke at his peripheral veins in an attempt to establish an IV line for the lethal drugs. Even while seated, Bucklew will likely start gagging on his own blood before the technicians achieve IV access. *See* J.A. 204, 234–35.

In the unlikely event that the medical team establishes peripheral vein access, Bucklew is at an increased risk of having a vein blow because he has poor peripheral veins. J.A. 340–41, 189–90. If a vein blows, pentobarbital would leak into and destroy the surrounding tissue, causing extreme pain. J.A. 332–33.

Far more likely, the medical team will eventually stop trying to gain peripheral access, and will turn to a central line, likely the femoral vein. To access the femoral vein, the record indicates that members of the execution team will perform a cut-down procedure; that is what they have done in the past when attempts at peripheral access failed. J.A. 611–12, 616. During a cut-down, Bucklew will lie flat, at least while the medical team attempts to access his femoral vein, and possibly throughout the remainder of the execution. J.A. 821, 875–76 & n.5. The gagging he is experiencing from bleeding will likely become worse as he struggles to position his tumor to prevent an airway blockage.

He will convulse in an effort to breathe. J.A. 232–35. His convulsions will increase the risks associated with the attempt to gain access through the femoral vein, including piercing the femoral artery. J.A. 343–45; *see also* J.A. 235. That risk was recently made especially vivid during the failed execution of Doyle Lee Hamm in Alabama on February 22, 2018. Even though Alabama certified that it would use personnel qualified to access the femoral vein, the medical team punctured Hamm's artery. Preliminary Report of Doyle Hamm Examination at 4, *Hamm v. Dunn*, No. 2:17-cv-2083 (N.D. Ala. filed Mar. 5, 2018) (ECF 93). That execution had to be abandoned. If, as is likely, Bucklew is violently struggling to breathe while the team attempts femoral access, his risk of a similar failure increases.

The painful cut-down procedure and struggles to breathe will further increase the stress of the execution and the likelihood and severity of a rupture to Bucklew's tumor. There is a significant likelihood that Bucklew will be choking on his tumor and gagging on his own blood for the duration of the cut-down procedure, before the injection of the lethal drug even begins. J.A. 232–35, 351.

2. After the lethal drug begins to flow, Bucklew will soon lose the ability to manage his airway. This is true regardless of his position—whether lying flat, upright, or anything in between. J.A. 233. He will begin to experience a sense of suffocation and the extreme pain associated with suffocation. J.A. 819–22. In the unlikely event he has not already begun choking on his own blood as a result of struggling while lying flat throughout the cut-down procedure, the violence of his choking as he slips into unconsciousness will likely cause his tumors to rupture and lead him to aspirate his own blood. J.A. 234–35. Bucklew's hemangiomas

may also cause blood to come out of his facial orifices during the execution process. J.A. 445–46.

The parties disagree over how long Bucklew will be unable to manage his airway while experiencing the sense of suffocation. Bucklew's expert opines that Bucklew could be in this state for between 52 and 240 seconds, while respondents' expert opines that he would be conscious of suffocation for 20 to 30 seconds. J.A. 821–22. These estimates are on top of any period of time Bucklew is gagging and struggling to breathe prior to the administration of the lethal drug.

Missouri has never executed an inmate who suffers from cavernous hemangioma. APP0448 at Resp. No. 4. And prison officials have no contingency plans in place should any aspect of the execution fail to go as planned.

D. The Medical Team

Any judgments concerning how to handle an inability to gain venous access, an inmate choking, gagging, or hemorrhaging blood, or any of the other predictable complications arising from Bucklew's condition are left to the sole discretion of the medical members of the execution team. J.A. 548–50, 588–89. Nothing in the record suggests they will be anticipating what Bucklew will likely experience.

As noted above, the medical personnel who perform the execution will not be provided any information concerning Bucklew's medical condition beyond the pre-execution summary of medical history, which is a single page. In 2014, as Missouri prepared to execute Bucklew, the non-physician who prepared the form provided little information to educate the medical team. *See* J.A. 682–84. As relevant here, it reported Bucklew's cavernous hemangioma, but only with respect to his jaw and upper lip. It said *nothing* about

his compromised veins, and *nothing* about the tumor in his throat that will inhibit his breathing during the execution and will very likely rupture and cause him to choke on his blood, and *nothing* about his being prone to bleeding. Indeed, whoever prepared the form inaccurately reported "No" in response to the question "Does the offender have Asthma, bronchitis, or *any other breathing problems?*" J.A. 683 (emphasis added). Dr. McKinney—Bucklew's treating physician at the Department of Corrections—testified that he was never contacted about Bucklew's medical history prior to Bucklew's scheduled execution in 2014, nor was he asked to help fill out any form. J.A. 635–36. Missouri's process all but ensures that the medical team will be largely ignorant of Bucklew's needs and the unique risks he faces.

Moreover, the process prevents the medical team from acquiring any medical information about Bucklew on their own, even if they want to. As discussed above, they will have access to none of Bucklew's medical records. And they cannot consult with an inmate's treating physicians regarding any atypical or unique medical conditions the inmate may have. J.A. 635–36. There is no reason to believe that the medical members of the execution team have ever seen *any* patient with cavernous hemangioma, or have ever seen one with tumors in his throat. Even if they are alerted to the *fact* of the disease by the medical form, there is no reason to believe they will be alert to the rare tumor in Bucklew's throat, its exceptional sensitivity, and the special suffocation risk it creates.

In sum, the medical members of the execution team have all the authority to make decisions affecting both the magnitude of Bucklew's risks and any responses to problems as they arise. But the process ensures they are almost entirely ignorant of his condition. There is

no reason to believe they have seen anyone like Bucklew before, and no reason to believe they are equipped either as a matter of training or experience-based judgment to handle problems as they arise. Yet their on-the-spot judgments will have an enormous impact on the degree of suffering Bucklew endures.

E. The Lethal Gas Alternative

Bucklew has proposed death by nitrogen hypoxia as an alternative method of execution. J.A. 42–44. Lethal gas is an authorized method of execution under Missouri Law. Mo. Rev. Stat. § 546.720. In addition, two other States—Louisiana and Oklahoma—have extensively investigated the feasibility and availability of lethal gas. APP1069; APP0546-67; J.A. 734–37. Oklahoma's legislature determined that "[t]he costs would be minimal and include the one time purchase of a gas mask (similar to what one experiences at the dentist), and the price for a canister of nitrogen." J.A. 693. An Oklahoma multicounty Grand Jury, convened in October 2015 to review evidence and issue a report after the botched execution of Charles Warner, also concluded that given the abundance of nitrogen gas, it would be easy and inexpensive to obtain. J.A. 695–97. Evidence also suggests that nitrogen-induced hypoxia would be an easy method of execution to administer, and would not require the participation of licensed medical professionals. *Id.* Lethal gas requires no venous access at all. As both the district court and court of appeals recognized, respondents have not contested that nitrogen-induced hypoxia is both a feasible and available alternative method of execution. J.A. 827, 866.

Dr. Antognini opined that, if administered correctly, lethal gas would lead to a quick death. J.A. 460. Specifically, he testified that inhalation of nitrogen gas

would "quickly achieve hypoxia" and cause an inmate to become unconscious "very quickly"—within about 20 to 30 seconds of breathing pure nitrogen. J.A. 432, 458, 460; *see also* J.A. 877. Dr. Zivot did not opine on whether lethal gas would result in significantly less suffering than Missouri's lethal injection protocol because he is ethically barred from proposing a method of execution at all. J.A. 219–220.

In addition, there is reason to believe that breathing 100% nitrogen does not produce a sense of suffocation. The sense of suffocation is caused by a buildup of carbon dioxide in the blood when a person is unable to expel air. J.A. 736. If one breathes in pure nitrogen while expelling air, death is caused by an absence of oxygen unaccompanied by a sense of suffocation. *Id.*; J.A. 746–47. Reports of high altitude pilots who lost consciousness while breathing air low in oxygen and high in nitrogen is consistent with this view. J.A. 696–97.

F. Proceedings Below

1. Procedural History And Discovery

In a Fourth Amended Complaint filed on October 13, 2015, Bucklew challenged the constitutionality of Missouri's execution protocol as applied to him. Among other things, he alleged that Missouri's lethal injection protocol "presents a substantial risk of causing excruciating or tortuous pain and inflicting needless suffering" and therefore violates the Eighth Amendment's prohibition on cruel and unusual punishment.[4] J.A. 85–86 ¶¶ 148, 151.

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[4] Bucklew was also party to an earlier case styled *Zink v. Lombardi*, No. 12-4209-BP (W.D. Mo. filed Aug. 1, 2012), in which he and other inmates raised a facial challenge to Missouri's lethal injection execution protocol.

Bucklew's initial complaint was filed on May 9, 2014, and on May 14, 2014, Bucklew moved for a stay of his execution, then scheduled for May 21, 2014, to provide adequate time to litigate his claims. The district court denied Bucklew's motion for a stay, and dismissed his complaint, *sua sponte*. *Bucklew v. Lombardi*, No. 14-8000-CV-W-BP, 2014 WL 2736014 (W.D. Mo. May 9, 2014).

With only two days remaining until his scheduled execution, Bucklew immediately appealed the dismissal of his complaint. An Eighth Circuit panel granted a stay. *Bucklew v. Lombardi*, 565 F. App'x 562, 569–72 (8th Cir. 2014). After the Eighth Circuit, sitting *en banc*, vacated the stay on the same day, this Court entered a stay of execution pending Bucklew's appeal. *Bucklew v. Lombardi*, 134 S. Ct. 2333 (2014) (Mem.).

Roughly ten months later, the *en banc* Eighth Circuit reversed the dismissal of Bucklew's complaint and remanded for further proceedings. *Bucklew v. Lombardi*, 783 F.3d 1120 (8th Cir. 2015). The full Eighth Circuit rejected Bucklew's argument that he need not propose an alternative method of execution because he raised an as-applied, not a facial, challenge to Missouri's lethal injection method of execution. *Id.* at 1123, 1128.

On remand, Bucklew amended his complaint to assert that lethal gas is a "feasible and available alternative method that will significantly reduce the risk of severe pain." J.A. 85 ¶ 150. He also sought discovery that would establish precisely how the execution procedure would be applied to him. In light of the Eighth Circuit's remand, Bucklew bore the burden of demonstrating that his proposed alternative method of execution would significantly reduce the risk of suffering that he faced from lethal injection.

Glossip, 135 S. Ct. at 2737. The first step in comparing the two methods, as Bucklew saw it, was determining the severity of the risks he faces from Missouri's lethal injection procedure.

To that end, Bucklew sought discovery about the medical members of the execution team who would be responsible for implementing the execution protocol. In light of "the severity of his medical condition," Bucklew told the district court that "the training and qualifications of the execution team members are especially important." APP0222. Bucklew sought, among other things, information about the skills and training of M2 and M3 to handle the predictable risks that his rare condition would present. APP0224–26. Bucklew indicated that identifying information in any documents produced concerning M2 and M3 could be redacted to ensure their anonymity. APP0224–25. Bucklew also sought to depose the medical members of the execution team. APP0226. Bucklew explained that without such discovery he would "not know the current composition of the execution team, the type of equipment presently being used or whether any monitors for blood pressure, heart rate or oxygen are available in the execution chamber." APP0222.

Respondents sought phased discovery. Specifically, respondents argued that Bucklew should be permitted to discover only information about lethal injection generally, without any specifics related to Missouri's execution protocol or the medical professionals tasked with implementing the protocol. APP0234-37. Instead, respondents were insisting that Bucklew prove lethal gas would significantly reduce his risk of suffering while opposing discovery that would help establish how severe a risk he faced from lethal injection.

The district court rejected the bulk of Bucklew's requests for discovery. J.A. 116–26. The district court

agreed with respondents that "detailed discovery about the execution team members is unnecessary to resolving the issues in this case," J.A. 124, and it permitted Bucklew discovery only of information regarding the number of doctors, nurses, or anesthesiologists on the execution team. *Id.* Bucklew received no information pertaining to those individuals' actual expertise and skills relevant to carrying out the execution of an individual with Bucklew's severe and unusual medical condition. *Id.* And Bucklew was denied the opportunity to depose any of the professionals who would administer his execution. J.A. 124–25.

After discovery had proceeded further, Bucklew explained in a motion to compel that "throughout discovery, the training of the medical members of the execution team has squarely been placed at issue, particularly as it relates to Mr. Bucklew's as-applied challenge." APP1010. Testimony from prison officials had revealed the discretionary authority granted to the medical members of the execution team. Discovery had also revealed the previously unknown use of a cut-down procedure to obtain venous access to the femoral vein, equivocal testimony regarding the feasibility of repositioning the gurney, and testimony indicating that not all medical professionals are qualified or sufficiently skilled to perform a central line procedure. APP1016-20. Bucklew urged that, without information regarding the training and expertise of the medical professionals on the execution team, he could not know how the medical professionals would exercise their discretion or what types of procedures they are qualified to perform, nor could he know how they would address any of the contingencies likely to arise during his execution. *Id.* In short, without discovery about M2 and M3, Bucklew could not know how the

execution protocol would actually be applied to him. The district court again denied Bucklew access to this discovery. J.A. 665–66, 681.

M2 and M3 have been deposed in prior capital litigation, specifically in 2010 in *Ringo v. Lombardi*, No. 09-4095-BP (W.D. Mo. filed May 17, 2009), and in 2013 and 2014 in *Zink v. Lombardi*, No. 12-4209-BP (W.D. Mo. filed Aug. 1, 2012). Bucklew's appointed counsel, Ms. Pilate, represented Bucklew in those proceedings (which raised facial challenges, not as-applied challenges to Missouri's execution protocol), and has reviewed those sealed depositions. But pro bono counsel, Sidley Austin, who joined Bucklew's team later, has been barred from reviewing the depositions, and the court refused to allow the depositions to be used in Bucklew's case. APP1019. In connection with Bucklew's motion to compel discovery, Ms. Pilate sought leave to file an exhibit under seal, and *ex parte* as to Sidley Austin only, that contained excerpts of M3's prior testimony. J.A. 127–30. That request was denied. J.A. 131. Ms. Pilate also requested permission to file a supplemental brief regarding the prior testimony of M2 and M3 in support of Bucklew's opposition to summary judgment, contending that she had reason to believe that the contents of those depositions contravened portions of the respondents' statement of allegedly undisputed facts and also provided additional facts relevant to summary judgment issues. J.A. 811–15. That request was denied. J.A. 816. The district court also again denied Ms. Pilate's request to share the contents of the M2 and M3 deposition transcripts with Sidley Austin in connection with Bucklew's Rule 59(e) motion. J.A. 833–35.

2. The Lower Court Decisions

The district court granted respondents summary judgment. The district court assumed that the record demonstrated "a substantial risk that [Bucklew] will experience choking and an inability to breathe for up to four minutes." J.A. 827. The court also noted that "Defendants do not argue that [Bucklew's proposed alternative] method of execution is not feasible or readily implemented." *Id.* However, the district court concluded that the record did not present a triable dispute concerning whether execution by nitrogen gas would significantly reduce Bucklew's risk of needless suffering, as compared to Missouri's lethal injection protocol. J.A. 828.

A divided panel of the Eighth Circuit affirmed. The panel majority concluded that Bucklew provided no evidence proving that lethal gas would substantially reduce his risk of severe pain. It acknowledged evidence from Bucklew's expert that lethal injection would cause him to experience a sense of suffocation for several minutes. J.A. 867–68. The panel also acknowledged that it was undisputed that lethal gas would cause him to experience a sense of suffocation for, at most, 20–30 seconds. *Id.* And nothing in the panel's opinion cast doubt on the proposition that that difference—between suffocation for 20–30 seconds and suffocation for several minutes—would be significant enough to warrant relief. Instead, the panel declared that Bucklew's claim failed because the evidence showing a difference between the two methods had not come from a *single* witness. *Id.* That is, the panel interpreted this Court's requirement in *Glossip* of "comparative" evidence to mean that an inmate must present one witness who presents testimony regarding all aspects of the comparison. *Id.*

Judge Colloton dissented. In surveying the evidence and interpreting it in the light most favorable to Bucklew, Judge Colloton concluded: "If the factfinder accepted Dr. Zivot's testimony as to the effect of pentobarbital, and Dr. Antognini's uncontroverted testimony as to the effect of nitrogen gas, then Bucklew's proposed alternative method would significantly reduce the substantial risk of severe pain . . . ." J.A. 877. Judge Colloton observed that the general rule allows the trier of fact to accept all or just a part of any witness' testimony, and that on summary judgment one party can rely on a portion of the opposing party's expert's testimony to create a genuine issue of material fact. *Id.* Accordingly, Judge Colloton would have remanded the case to the district court to hold a trial and make factual findings.

The panel majority also affirmed the district court's denial of any discovery into the qualifications of the medical team. The panel majority, interpreting Bucklew's argument as resting on the "premise that M2 and M3 may not be qualified for the positions for which they have been hired," refused to "assume that Missouri employs personnel who are incompetent or unqualified" or to permit discovery into "[t]he potentiality that something may go wrong in an execution." J.A. 870–71. Instead, the panel majority insisted that the court's analysis must be based on the assumption "that those responsible for carrying out the sentence are competent and qualified to do so, and that the procedure will go as intended." J.A. 871.

The Eighth Circuit ruled just two weeks before Bucklew's scheduled execution. Three days after the decision, Bucklew petitioned for a panel rehearing or rehearing *en banc*, and moved for an emergency stay. With five days left before his scheduled execution, the Eighth Circuit denied the petition. J.A. 884. This

Court thereafter stayed Bucklew's execution and granted Bucklew's petition for writ of certiorari.

SUMMARY OF ARGUMENT

Bucklew has a rare medical condition. If he were executed by Missouri's lethal injection protocol, the result would be a gruesome and predictably excruciating death. The State's decision to adhere to its protocol notwithstanding the known and substantial risk of gratuitous suffering that it would impose violates the Eighth Amendment's prohibition on cruel and unusual punishments, and the contrary decision of the court of appeals should be reversed for three independent reasons.

First, the Eighth Circuit's decision rests on an erroneous and improper assumption. In the face of substantial evidence that Bucklew's medical condition will lead to unique problems in the implementation of the protocol, the court of appeals simply assumed those problems away—it assumed, in other words, that the execution will go as intended. That assumption not only improperly resolved disputed factual questions in the State's favor; it also provided the Eighth Circuit's only justification for denying Bucklew crucial discovery. Stripped of its erroneous assumption, the decision below cannot stand.

Second, the Eighth Circuit wrongly imported the "known-and-available-alternatives requirement" that was developed for facial challenges to methods of execution into a case involving an as-applied challenge. The known-and-available-alternatives requirement serves two purposes in the context of facial challenges, and neither of those purposes are implicated here. Unlike a facial challenge, Bucklew's claim based on his unique medical condition does not risk creating an effective moratorium on capital

punishment. And unlike a facial challenge—in which the inherent cruelty of one method of execution cannot reasonably be evaluated without a comparator—Bucklew's claim provides a ready basis for evaluating the cruelty of the State's intended method of execution as applied to him. What makes the State's intended course of action cruel is that the State intends to proceed with a method that, based on Bucklew's unique medical condition, it knows presents a very serious risk of gruesome pain and suffering.

Finally, even if Bucklew were required to identify a known and available alternative that would reduce his risk of pain, the record as a whole amply supports the conclusion that lethal gas is such an alternative. Indeed, the State did not even dispute the availability or feasibility of a lethal gas alternative below. The only factual dispute concerned whether this known alternative would reduce Bucklew's risk of suffering. And based on the testimony of the experts—both Bucklew's expert's testimony on lethal injection and the respondents' expert's testimony on lethal gas—a reasonable finder of fact could conclude that the lethal gas alternative would indeed substantially reduce that risk. But the Eighth Circuit refused to look at the record as a whole. Instead, it imposed a novel rule that a claimant cannot prevail unless all elements of his claim are established through the testimony of a single expert witness. This single-witness rule is wrong in general and especially perverse in method-of-execution cases, where inmates will typically be unable to find an expert willing and able, consistent with ethical constraints, to tell the State how best to kill an inmate.

The decision below should be reversed.

ARGUMENT

I. COURTS SHOULD NOT ASSUME THAT AN EXECUTION WILL GO AS INTENDED WHEN CONSIDERING AN AS-APPLIED CHALLENGE TO A METHOD OF EXECUTION.

Bucklew's as-applied challenge to Missouri's method of execution is based on the risks associated with his unique medical condition. He contends that that condition—particularly when combined with the inadequate medical history and practices of the medical members of the execution team—makes it very likely that his execution will involve avoidable, intense pain and suffering. In short, the execution will not go as intended. Yet in evaluating his claim, the court of appeals held that it must "*assum[e]* that those responsible for carrying out the sentence are competent and qualified to do so, and that the procedure *will* go as intended." J.A. 871 (emphasis added). Having assumed the very conclusion respondents urged the court of appeals to reach, the majority erroneously rejected Bucklew's claim, along with his request for discovery.

A. A Court Presented With An As-Applied Method Of Execution Claim Must Consider The Objectively Known Risks That Arise From How An Execution Protocol Will Impact An Inmate With A Particular Medical Condition.

The Eighth Circuit's assumption that Bucklew's execution will go as intended is improper for at least two reasons. First, it effectively converts as-applied method-of-execution challenges into facial attacks on a State's execution protocol: an inmate with a unique medical condition can only obtain relief from

predictable cruelty if he can prove that a protocol would impose similar suffering on all inmates—*i.e.*, that the suffering will obtain if the execution goes as intended. Second, it obscures a long-recognized category of unconstitutional treatment of prisoners: the deliberate indifference to an inmate's medical condition.

1. *Baze* and *Glossip* confirm that the Eighth Amendment protects inmates from methods of execution that pose "a substantial risk of serious harm." *Glossip*, 135 S. Ct. at 2737 (quoting *Baze*, 553 U.S. at 50). To obtain relief, an inmate must show that the risk of harm is "objectively intolerable," because such a risk "prevents prison officials from pleading that they were 'subjectively blameless for purposes of the Eighth Amendment.'" *Id.* The plurality in *Baze* thus contrasted an innocent mistake with a predictable failure, the latter of which is illustrated by *Louisiana ex rel. Francis v. Resweber*, 329 U.S. 459 (1947) (plurality opinion). *Resweber* teaches that an "unforeseeable accident," such as a mechanical failure in the operation of the electric chair, would not make a second attempt at execution by electrocution unconstitutional, but a "'hypothetical situation' involving 'a series of abortive attempts at electrocution' would present a different case." *Baze*, 553 U.S. at 50 (quoting *Resweber*, 329 U.S. at 471 (Frankfurter, J., concurring)). Predictable suffering presents a serious Eighth Amendment problem.

But *Baze* and *Glossip* required the Court to abstract from the particular circumstances of the individual claimants to identify the risks—or lack of risks—inherent in an execution protocol. *Baze* and *Glossip* were facial challenges: the inmates did not suggest that they were uniquely exposed to a risk of suffering. Instead, they argued that the relevant protocols were

inherently problematic, as applied to them or anyone else. *See United States v. Salerno*, 481 U.S. 739, 745 (1987) ("A facial challenge . . . must establish that no set of circumstances exists under which the Act would be valid"); *Wash. State Grange v. Wash. State Republican Party*, 552 U.S. 442, 449 (2008) (to succeed on a facial challenge, the plaintiff must show "that the law is unconstitutional in all of its applications"). Thus, in *Baze*, this Court considered the generally applicable risks posed by improper mixing of chemicals, as well as failures of IV administration and of procedures for monitoring consciousness. 553 U.S. at 54–56 (plurality opinion). Likewise, in *Glossip*, this Court evaluated how midazolam would affect "any individual" at the dose Oklahoma's execution protocol required. *Glossip*, 135 S. Ct. at 2741. When evaluating a facial challenge to a State's protocol, it is only natural to assume away differences among inmates that may uniquely expose some inmates to unintended (albeit predictable) problems in implementation—even problems that may result in intense suffering.

Assuming away predictable but unintended problems in implementation makes no sense in the context of an as-applied challenge like Bucklew's. Bucklew places front and center the risks raised by the interaction of Missouri's execution protocol and the particular circumstances of his medical condition. The risk he faces cannot be understood without taking into consideration how someone with compromised veins and cavernous hemangioma, including a highly sensitive tumor on his uvula, will suffer during the various steps Missouri's protocol contemplates, as implemented by the medical personnel involved. Those risks can be objectively evaluated in advance. For example, the medical personnel who have substantial discretion over Missouri's execution procedure, *see*,

e.g., J.A. 583–85, 587–89, 595–96, can be either well or poorly prepared to exercise their judgment in the execution chamber in light of Bucklew's known risks. A medical team that is poorly informed of Bucklew's condition or unfamiliar with cavernous hemangioma will substantially increase the objectively knowable risk of suffering that Bucklew faces.

Bucklew submits that—even on the existing record—a reasonable finder of fact would conclude that he faces a substantial risk of serious harm in the implementation of Missouri's lethal injection. The State's view is that no such risk exists, and the execution will go as intended. The court of appeals erroneously resolved this factual dispute by assuming it away. But a rule that assumes executions will go as intended converts as-applied method-of-execution claims into facial challenges: inmates facing a unique and predictable risk of a botched execution can only obtain relief if they can prove that the protocol is cruel on its face when all goes as planned.

2. The Eighth Circuit's erroneous assumption also obscures a kind of cruelty that has been a focus of this Court's Eighth Amendment jurisprudence for decades. This Court has long understood that "deliberate indifference" to an inmate's medical condition can rise to the level of cruel and unusual punishment within the meaning of the Eighth Amendment, because it "constitutes the 'unnecessary and wanton infliction of pain,'" contrary to contemporary standards of decency. *Estelle v. Gamble*, 429 U.S. 97, 104 (1976). There is no reason to cast this principle aside in the methods-of-execution context: if state officials know that an inmate suffers from a rare medical condition that makes him uniquely likely to endure gratuitous

suffering if they follow ordinary execution protocols, their decision to go forward is culpably cruel.[5]

To ask medical personnel to carry out an execution when they have not been alerted to the serious medical condition of the inmate, and have no training or experience dealing with that condition, is to invite catastrophe. When such an execution predictably goes very badly, it would be no "innocent" mistake in the carrying out of an execution that does not "suggest cruelty." *Baze*, 553 U.S. at 50 (plurality opinion). Such a predictably botched execution denies not only respect for the basic human dignity of the condemned inmate by showing indifference to his likely suffering. It also denies the essential human dignity of those charged with carrying out an execution by making them an unwitting party to foreseeable cruelty. The Eighth Amendment demands more for the benefit of inmate and executioner alike.

By assuming that executions will go *as intended*, the court of appeals in effect absolves respondents of their decision to take an unjustified risk. Even if the inmate's unique medical condition makes it very likely that the execution will be torturous, the Eighth Circuit's rule erroneously leaves state officials free to

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[5] Bucklew's operative complaint included a separate "deliberate indifference" claim, which was dismissed early in the litigation. J.A. 86–88 ¶¶ 152-59 (Count II); APP0216 (Order granting dismissal of Count II)). But that dismissal does not foreclose consideration of underlying principles regarding the imposition of gratuitous suffering in connection with Bucklew's method-of-execution challenge. Nor does such dismissal restrict the discovery to which Bucklew should be entitled. *Contra* J.A. 124–25. For example, M2's and M3's training and qualifications will have a direct impact on the level of risk Bucklew will face during an execution, regardless of whether Bucklew's claim is viewed through the lens of *Glossip*/*Baze* or *Estelle*.

ignore that risk so long as the execution would be humane if all goes as intended.

B. An Inmate Asserting An As-Applied Challenge Is Entitled To Discovery Into The Training And Experience Of Medical Members Of The Execution Team To Establish The Full Extent Of The Risk Of Suffering He Faces.

Bucklew sought discovery into the training and qualifications of the medical personnel on the execution team so that he could establish the full extent of the risks of suffering he faces from Missouri's execution procedure. But the Eighth Circuit affirmed the district court's decision to preclude all such discovery. It did so because it felt obligated to assume that the execution will go as intended. J.A. 871. Having *assumed* the execution will go as intended, the court of appeals saw no need for discovery into the medical personnel's training or qualifications. In the absence of that erroneous assumption, no sound principle of execution protocol administration supports depriving an inmate of the opportunity to ensure that the medical members of the execution team are informed about the details of his complicating medical condition, and are equipped to manage it so that the inmate does not needlessly suffer.

As discussed above, Bucklew produced ample evidence that Missouri's execution protocol, as applied to him, involves a substantial risk that he will suffer repeated, failed attempts to gain peripheral venous access, that the tumor on his uvula will rupture early in the process, that he will gag on his own blood as a result, that when he is made to lie flat during a cut-down procedure he will have difficulty managing his airway, and that (assuming the execution progresses

this far) when the lethal drug is administered he will, after he loses the ability to manage his airway, experience a sense of suffocating for several minutes. *See supra* pp. 10–13. He has also produced evidence that medical members of the execution team will not know about these risks because they will be ill-informed about his condition. *See supra* pp. 7–8; 13–15. Critically, however, what he does not know is how the execution team is likely to respond as these problems arise and as his suffering increases. He is entitled to discovery to test the experience, knowledge, and training of the medical team whose decisions will have such a dramatic impact on the risk of suffering he faces.

Federal Rule of Civil Procedure 26(b)(1) provides that "[p]arties may obtain discovery regarding any nonprivileged matter that is relevant to any party's claim or defense and proportional to the needs of the case, considering," among other things, "the importance of the issues at stake in the action, . . . the parties' relative access to relevant information, . . . [and] the importance of the discovery in resolving the issues." Fed. R. Civ. P. 26(b)(1). As this Court has explained, relevance is to be "construed broadly to encompass any matter that bears on, or that reasonably could lead to other matter that could bear on, any issue that is or may be in the case." *Oppenheimer Fund, Inc. v. Sanders*, 437 U.S. 340, 351 (1978) (citing *Hickman v. Taylor*, 329 U.S. 495, 501 (1947)). "[D]iscovery is not limited to issues raised by the pleadings, . . . [n]or is discovery limited to the merits of a case, for a variety of fact-oriented issues may arise during litigation that are not related to the merits." *Id.* The material and depositions that Bucklew sought related to the experience, knowledge,

and training of M2 and M3 is squarely relevant to Bucklew's claim for several reasons.

First, much of the protocol's implementation will be at the medical team members' discretion. Anne Precythe, who as Director of Missouri's Department of Corrections is nominally in charge, has testified that she knows nothing about Bucklew's medical condition and would defer to M2 and M3 regarding how to handle any issues that might arise during the execution, such as how to position Bucklew or obtain venous access. J.A. 583–85, 587–89, 595–96, 874–76 & n.5.

The discretionary judgments of the medical team will substantially impact Bucklew's degree of suffering, yet the team will not have the information necessary to make informed judgments. The one-page summary of Bucklew's medical condition is likely to be inadequate, J.A. 682–84, and Precythe does not intend to tell the medical members of the execution team about Bucklew's condition or give M2 or M3 access to him prior to the execution. J.A. 585–86. At best, Precythe testified that she did not know how Bucklew's condition would be handled. J.A. 586.

The medical team's ignorance of Bucklew's condition is plainly relevant to his constitutional claim. The less the team knows, the greater Bucklew's risk of needless suffering. Their ignorance can take an already deeply troublesome situation and make it even worse. For example, and as noted above, stress (such as when the team tries but fails to obtain venous access) makes it more likely that Bucklew's tumors will bleed, causing him to choke on his own blood and struggle to breathe. The medical team's knowledge or lack thereof thus bears directly on Bucklew's risk of "unnecessary cruelty" or a "lingering death." *Baze*, 553 U.S. at 48–49 (plurality opinion) (quoting *Wilkerson v. Utah*, 99

U.S. 130, 136 (1879) and *In re Kemmler*, 136 U.S. 436, 447 (1890)). It would be reasonable to impose limitations that will protect the identities of those on the execution team (*e.g.*, a protective order, the use of telephonic depositions, or the submission of written interrogatories), but not to deny relevant discovery altogether.

Second, discovery will reveal the medical team's qualifications and plans regarding venous access. The execution protocol allows for an attempt to gain access through a central vein, like the femoral artery, but only if the medical team is qualified to attempt such a procedure. J.A. 213–14. That is, the protocol itself makes the qualifications of the medical team directly relevant to Bucklew's claim. As noted above, it is highly likely that gaining IV access through a peripheral vein will fail. J.A. 332–33, 338, 351, 183, 186–187, 231–32. Bucklew knows that members of the execution team have previously attempted a cut-down procedure, but he does not know (a) whether they would attempt to obtain access via a peripheral vein first, (b) whether they plan to use a cut-down procedure in his case, or (c) how exactly they would implement a cut-down procedure—all of which bear on the risk of suffering he faces.

Third, the State's own appellate strategy confirms the urgent need to obtain discovery regarding the medical team's actual plans and expectations. The summary judgment record reflects that inmates in prior executions have been required to lie supine, and no one testified that Bucklew would be treated any differently. So Bucklew reasonably inferred that he, too, will be forced to lie supine during his execution, which will increase his suffering. But then, on Bucklew's petition for rehearing in the court of appeals—and less than one week before the scheduled

execution—respondents submitted a new affidavit of a new witness purporting to provide minimal (and inadequate) assurance that Bucklew will not be "fully supine at the time the Department administers the lethal chemicals." J.A. 882. This affidavit only underscores the need for further discovery. It is incomplete, as it does not address whether Bucklew will have to lie supine during a cut-down procedure. It is inconsistent with the testimony of Boyles's superior, who said that she would leave decisions regarding positioning to the medical team. And it is untested, in that Bucklew has had no opportunity to depose this new witness to learn her role in the execution or her authority to direct the medical members of the execution team.

No one wants another botched execution. *See, e.g.*, *Glossip*, 135 S. Ct. at 2734. Worse still would be an entirely preventable botched execution—particularly where discovery would reveal just how predictable failure may be. The botched execution of Doyle Hamm provides a case in point. It was well known that Hamm had cancer and weak veins in his upper extremities. *Hamm v. Dunn*, 138 S. Ct. 828, 828 (2018) (Mem.) (denial of petition for certiorari). Alabama agreed, pursuant to an affidavit submitted on appeal, to attempt venous access only through Hamm's lower extremities, something the State had never done before. *Hamm v. Comm'r, Ala. Dep't of Corr.*, 725 F. App'x 836, 839–40 (11th Cir. 2018) (per curiam). But the Eleventh Circuit denied Hamm the opportunity to investigate whether he would suffer serious harm under this last-minute material change. When Alabama attempted to execute Hamm, it failed because of the execution team's predictable inability to access a viable vein, despite repeated painful attempts

to do so. Had discovery been permitted, a gruesome failed execution could have been avoided.

Meaningful adversarial testing elicits truth. *See, e.g., Herring v. New York*, 422 U.S. 853, 862 (1975) ("The very premise of our adversary system of criminal justice is that partisan advocacy on both sides of a case will best promote the ultimate objective that the guilty be convicted and the innocent go free."); *see also Joint Anti-Fascist Refugee Comm. v. McGrath*, 341 U.S. 123, 171 (1951) (Frankfurter, J., concurring) ("Secrecy is not congenial to truth-seeking."). But the adversary process cannot "function effectively without adherence to rules of procedure that . . . provide each party with a fair opportunity to assemble and submit evidence." *Taylor v. Illinois*, 484 U.S. 400, 410–11 (1988). Cutting off relevant information only increases the risk of error. And in the case of an execution, a process that deprives the court of relevant information increases the risk of a catastrophic experience for the inmate, witnesses, and execution personnel. *Hamm*, 138 S. Ct. at 828–29 (Ginsburg, J., dissenting) (the "adversarial process" must be permitted to "test[ ] the risk of 'serious illness and needless suffering'" that is likely to occur during an execution). It is beneath the dignity of a society that aspires to respect the constitutional guarantee against cruel and unusual punishment to carry out executions by a process that promotes ignorance of the risks of avoidable suffering.

II. THE "KNOWN-AND-AVAILABLE-ALTERNATIVES REQUIREMENT" HAS NO PLACE IN AN AS-APPLIED CHALLENGE BASED ON AN INMATE'S UNIQUE MEDICAL CONDITION.

The known-and-available-alternatives requirement of *Baze* and *Glossip* addresses two primary concerns, one practical and the other substantive. The practical

concern is that, in the absence of an identified alternative, a facial challenge to a method of execution—as in both *Baze* and *Glossip*—could deprive the government of the only available means of carrying out capital punishment. The substantive concern is that a risk of pain accompanies *any* method of execution, which makes it difficult to assess whether exposing inmates to the risks inherent in a given method would be "cruel and unusual" without some comparator. Requiring an inmate to identify an available alternative ensures that executions may proceed, and that the only methods of execution that will be categorically removed from consideration are those that are clearly cruel and unusual when compared to known alternatives.

But Bucklew's as-applied challenge based on his unique medical condition presents neither of the concerns that animate *Baze* and *Glossip*. Whatever happens in this case, Missouri will remain free to use its standard lethal injection protocol with other inmates. And Bucklew's unique condition provides a straightforward predicate for evaluating the cruelty of his anticipated execution, irrespective of the specific alternatives that might be available. Unlike the challengers in *Baze* and *Glossip*, Bucklew does not argue that there is anything inherently wrong with the State's execution protocol, either in theory or in general practice. Instead, what makes Missouri's plans to execute Bucklew cruel and unusual is the fact that state officials *know* the protocol exposes Bucklew to a unique risk of gratuitous and wanton suffering based on his unusual medical condition, yet they plan to press forward all the same.

Bucklew should not bear the burden of identifying a known and available alternative when the State's existing protocol, as applied to him in particular,

violates the Eighth Amendment because it reflects the "barbarity of . . . mindless vengeance" rather than a proper respect for Bucklew's individual humanity. *Ford v. Wainwright*, 477 U.S. 399, 400 (1986); *see also Estelle*, 429 U.S. at 106 (forbidding actions reflecting "deliberate indifference to serious medical needs").

A. An As-Applied Challenge Based On An Inmate's Unique Medical Condition Will Not, In Effect, Ban Capital Punishment.

The main practical concern animating this Court's known-and-available-alternatives requirement is that method-of-execution claims should not, in effect, foreclose capital punishment altogether. Thus, for example, the plurality in *Baze* began its analysis "with the principle, settled by *Gregg* [*v. Georgia*, 428 U.S. 153 (1976)], that capital punishment is constitutional," which implies that "there must be a means of carrying it out." 553 U.S. at 47; *see also Glossip*, 135 S. Ct. at 2732–33. Likewise, the *Glossip* Court reasoned that proscribing one method of execution without identifying an alternative would "effectively overrule" a long line of cases holding that "capital punishment is not *per se* unconstitutional." 135 S. Ct. at 2739.

This practical concern has purchase in the context of a facial challenge to a particular method of execution. This Court has explained that a facial challenge requires proof that there is "no set of circumstances" in which the governmental action would be valid. *Salerno*, 481 U.S. at 745. Such challenges are the "most difficult . . . to mount successfully," *id.*, and they can have profound consequences. For example, the petitioners in *Baze* brought a facial challenge to a three-drug protocol that had been adopted by at least 30 of the 36 States that used lethal injection. If this Court had held the protocol was inherently cruel and unusual—such that it could not constitutionally be

applied to *any* inmate—then executions in those 30 States might have ground to a halt, creating a new moratorium on capital punishment like the one brought to an end by *Gregg* in 1976. The protocol challenged in *Glossip* was less widely adopted, but the effect of barring its use would have been no less dramatic in those States that had turned to midazolam when sodium thiopental and pentobarbital were no longer available. *See* 135 S. Ct. at 2734.

An as-applied challenge based on an inmate's unique medical condition is different. Bucklew's specific condition is so rare that it would be surprising if even *one* other inmate facing capital punishment nationwide—let alone in the State of Missouri—had it. To be sure, other inmates may assert that they, too, have a unique medical condition that renders a given execution protocol cruel and unusual as applied to them. But the possibility of a similar challenge does not prevent this court from setting an appropriate standard for evaluating the State's unwillingness to account for Bucklew's unique condition. *Cf., e.g., Estelle*, 429 U.S. at 104–05; *Farmer v. Brennan*, 511 U.S. 825, 835–40 (1994). Doing so does not "transform courts into boards of inquiry charged with determining 'best practices' for executions" writ large. *Baze*, 553 U.S. at 51 (plurality opinion). It ensures adequate judicial oversight and adversarial testing to protect against the horrors of predictably botched and failed executions.

In short, unlike the facial challenges of *Baze* and *Glossip*, an as-applied challenge cannot reasonably be expected to result in an order that has the effect of barring all executions—regardless of whether an inmate can identify a known and available alternative in a particular case. There is no system-wide reason to require an inmate raising an as-applied challenge

based on his unique medical condition to muster a less-cruel alternative.

B. An Inmate With A Unique Medical Condition Can And Should Be Permitted To Establish That A Given Method Of Execution, As Applied To Him, Would Be Cruel And Unusual Irrespective Of The Available Alternatives.

The known-and-available-alternatives requirement is also animated by a substantive concern regarding the application of the Eighth Amendment. In particular, the requirement helps address the difficulty of evaluating whether a given method of execution inherently presents a substantial and unjustified risk of severe pain. Without an alternative for comparison, it can be hard to tell whether a given method, in the abstract, presents too much of a risk of severe pain.

An as-applied challenge based on an inmate's unique medical condition does not present the same concern, however. State officials who know but choose to ignore the specific characteristics of a given inmate that make the inmate unusually susceptible to suffering severe pain under a given protocol practice a kind of cruelty forbidden by the Eighth Amendment.

1. For more than a century, this Court has understood the "cruelty" proscribed by the Eighth Amendment to include pain or suffering *gratuitously* imposed by the government. *See Wilkerson*, 99 U.S. at 136 ("[P]unishments of torture . . . and all others in the same line of *unnecessary cruelty*, are forbidden by that amendment to the Constitution." (emphasis added)); *Gregg v. Georgia*, 428 U.S. 153, 173 (1976) (plurality opinion) ("[T]he punishment must not involve the unnecessary and wanton infliction of pain."). For

capital crimes, the punishment of death is not itself unconstitutionally cruel, but methods of imposing death that are "inhuman and barbarous, something more than the mere extinguishment of life," are forbidden by the Eighth Amendment. *Kemmler*, 136 U.S. at 447. "The all-important consideration is that the execution shall be so instantaneous and substantially painless that the punishment shall be reduced, as nearly as possible, to no more than that of death itself." *Resweber*, 329 U.S. at 474 (Burton, J., dissenting).

This constitutional prohibition on imposing gratuitous suffering reflects the "basic concept underlying the Eighth Amendment," which is "nothing less than the dignity of man." *Trop*, 356 U.S. at 100 (plurality opinion). The Eighth Amendment requires States to "respect the human attributes even of those who have committed serious crimes." *Graham v. Florida*, 560 U.S. 48, 59 (2010); *see also Roper v. Simmons*, 543 U.S. 551, 560 (2005) ("By protecting even those convicted of heinous crimes, the Eighth Amendment reaffirms the duty of the government to respect the dignity of all persons."). As a leading scholar has explained, the "crux of governmental or societal cruelty is action toward citizens with such a lack of concern and respect as to degrade them and their significance as human persons." Margaret J. Radin, *The Jurisprudence of Death: Evolving Standards for the Cruel and Unusual Punishments Clause*, 126 U. Pa. L. Rev. 989, 1044 (1978). Punishments that evince such a lack of concern through the imposition of gratuitous suffering "are too degrading (both to the victim and to the inflicter) to be tolerated." *Id.*

For this reason, this Court has long recognized that "[t]he methods we employ in the enforcement of our

criminal law have aptly been called the measures by which the quality of our civilization may be judged." *Coppedge*, 369 U.S. at 449. The Eighth Amendment's prohibition on torture and gratuitous suffering protects not only the dignity of the prisoner but also "the dignity of society itself from the barbarity of exacting mindless vengeance." *Ford*, 477 U.S. at 410; *see also Robinson v. California*, 370 U.S. 660, 676 (1962) (Douglas, J., concurring) ("The Eighth Amendment expresses the revulsion of civilized man against barbarous acts—the 'cry of horror' against man's inhumanity to his fellow man."); *Whitmore v. Arkansas*, 495 U.S. 149, 173 (1990) (Marshall, J., dissenting) (explaining that "barbaric punishment" harms "basic societal values" and "the integrity of our system of justice").

There are certain categories of punishment that are "manifestly cruel and unusual," such that they are plainly forbidden by the Eighth Amendment without reference to any alternative methods. *Kemmler*, 136 U.S. at 446 (referring to "burning at the stake, crucifixion, breaking on the wheel, or the like"). This is because the "Cruel and Unusual Punishments Clause prohibits the imposition of inherently barbaric punishments under all circumstances." *Graham*, 560 U.S. at 59. Thus, for example, if the only legally authorized punishment for a given crime under state law were "torture," that punishment would be "forbidden" notwithstanding the fact that an inmate could not point to an available alternative (because, by assumption, no such alternative would exist). *Wilkerson*, 99 U.S. at 136. Notwithstanding some of the broader language in *Baze* and *Glossip*, this Court has not and should not be understood to have disavowed its repeated admonitions that torture and other forms of intentional infliction of gratuitous

suffering are *categorically* (not conditionally) forbidden. *See, e.g.*, *Baze*, 553 U.S. at 48 (plurality opinion) (referring to "forbidden punishments," which involved "the deliberate infliction of pain for the sake of pain—'superadd[ing]' pain to the death sentence through torture and the like" (quoting *Wilkerson*, 99 U.S. at 135)); *id.* at 101–02 (Thomas, J., concurring in judgment) ("It strains credulity to suggest that the defining characteristic of burning at the stake, disemboweling, drawing and quartering, beheading, and the like was that they involved risks of pain that could be eliminated by using alternative methods of execution.").

2. The standard set forth in *Baze* and *Glossip* responds to a different kind of problem. The challengers in each case did not allege that there was something inherently wrong either with lethal injection in general or even with the use of the combination of drugs at issue in either case—lethal injection is not inherently barbaric or torturous. Instead, the challengers contended that the State's protocols presented an unacceptable risk of suffering. *See Baze*, 553 U.S. at 47 (plurality opinion); *Glossip*, 135 S. Ct. at 2731.

As the *Baze* plurality explained, this type of facial challenge was complicated by the fact that "[s]ome risk of pain is inherent in any method of execution—no matter how humane—if only from the prospect of error in following the required procedure." 553 U.S. at 47. An inmate bringing such a challenge must establish that the risk of suffering associated with a given protocol is "objectively intolerable" by some metric, because an "isolated mishap alone . . . does not suggest cruelty." *Id.* at 50 (quoting *Farmer*, 511 U.S. at 846).

The known-and-available-alternatives requirement provides the needed metric. A facial challenge to an

otherwise-valid protocol—one that does not involve obvious torture, for example—requires proof of a "feasible, readily implemented" alternative that will "significantly reduce a substantial risk of severe pain." *Id.* at 52 (plurality opinion). A State that "refuses to adopt such an alternative" in the face of "documented advantages" acts with full knowledge of—or at least a patent indifference to—an unjustified risk of gratuitous suffering, and thus practices the kind of cruelty proscribed by the Eighth Amendment. *Id.* But if a facial challenge to a method of execution were considered in a vacuum and without a comparison to a known and available alternative, it would be difficult to tell whether the risk of pain is gratuitous rather than consistent with the typical risk associated with implementing capital punishment by any available means.

3. The known-and-available-alternatives requirement is a solution to a substantive puzzle that arises in the context of facial challenges to methods of execution. But an as-applied challenge based on an inmate's unique medical condition presents no such puzzle. Instead, the State's responsiveness (or indifference) to the inmate's medical condition is itself a basis upon which to evaluate whether the suffering associated with a proposed method is gratuitous and cruel.

In this case, for example, as discussed above, the State is well aware of the unique risk of suffering associated with implementing the State's standard protocol. Missouri knows, for example, that forcing Bucklew to lie supine will likely cause him to choke on his tumor and gag on his blood, experiencing a feeling of suffocation, as the medical team attempts to gain the venous access necessary for lethal injection. The State is likewise aware of the likelihood that members

of the execution team will use a painful cut-down procedure (as they have in the past), and the fact that such a procedure is all but certain to exacerbate the suffering to which Bucklew is uniquely susceptible. Nevertheless, the State intends to press on with its standard-issue protocol without even informing the execution team of the most serious risks associated with Bucklew's unique medical condition.

This Court has explained that even those convicted of the most serious crimes are "uniquely individual human beings," rather than "members of a faceless, undifferentiated mass to be subjected to the blind infliction of the penalty of death." *Woodson v. North Carolina*, 428 U.S. 280, 304 (1976) (plurality opinion). Implementing a penalty that "accord[s] with 'the dignity of man'" requires recognition of an individual's humanity. *McCleskey v. Kemp*, 481 U.S. 279, 300 (1987). Where, as here, an individual inmate has a unique medical condition that presents a substantial and particular risk of grave suffering, recognition of the inmate's humanity entails attention to that substantial and particular risk. On the other hand, indifference to an inmate's serious medical needs—and what those needs entail in connection with a method of execution—"constitutes the 'unnecessary and wanton infliction of pain' proscribed by the Eighth Amendment." *Estelle*, 429 U.S. at 104 (citation omitted). Such indifference to the humanity of a particular inmate on the part of the State is unconstitutionally cruel regardless of whether the inmate has identified an alternative method of execution. This Court should not countenance it.

III. THE RECORD AS A WHOLE ESTABLISHES THAT A LETHAL GAS EXECUTION WILL SUBSTANTIALLY REDUCE THE RISKS BUCKLEW FACES FROM MISSOURI'S LETHAL INJECTION PROTOCOL.

Even if this Court imposes on Bucklew the requirement to plead and prove the existence of a feasible and reasonably available alternative that will substantially reduce the risk of suffering he faces, it should still reverse the decision below.

The Eighth Circuit's decision rests on its view that lethal gas—which is undisputedly a feasible and available alternative—will not substantially reduce the risk of suffering that Bucklew faces from Missouri's lethal injection protocol. But that ruling was based on a fundamental error: the Eighth Circuit refused to consider the summary judgment record as a whole. Instead, it asked whether Bucklew had produced a single witness who believed that lethal gas would substantially reduce the risks he faces. J.A. 867–68. This single-witness rule finds no support in this Court's precedent. In an as-applied method of execution case, it is also perverse.

Evidence at summary judgment is evaluated in light of the record as a whole. *Ricci v. DeStefano*, 557 U.S. 557, 586 (2009); *Matsushita Elec. Indus. Co. v. Zenith Radio Corp.*, 475 U.S. 574, 587 (1986); Fed. R. Civ. P. 56(c)(1). The record as a whole comprises all evidence submitted by plaintiff and defendant alike. Accordingly, every court of appeals—including the Eighth Circuit—has recognized that a plaintiff may rely on testimony from a defendant's expert to meet plaintiff's own burden. *United States v. González-Vélez*, 587 F.3d 494, 504 (1st Cir. 2009); *United States v. Norman*, 776 F.3d 67, 78 (2d Cir. 2015); *United States v. Boone*, 279 F.3d 163, 189 (3d Cir. 2002);

Trademark Props., Inc. v. A&E TV Networks, 422 F. App'x 199, 212 (4th Cir. 2011); *United States v. Merida*, 765 F.2d 1205, 1220 (5th Cir. 1985); *Dixon v. Penn Cent. Co.*, 481 F.2d 833, 837 (6th Cir. 1973); *United States v. Rollins*, 544 F.3d 820, 835–36 (7th Cir. 2008); *IBEW Local 98 Pension Fund v. Best Buy Co.*, 818 F.3d 775, 782 (8th Cir. 2016); *United States v. Clevenger*, 733 F.2d 1356, 1358–59 (9th Cir. 1984); *United States v. Ransom*, 691 F. App'x 504, 506 (10th Cir. 2017); *United States v. Prince*, 883 F.2d 953, 959 n.3 (11th Cir. 1989); *Brooke v. United States*, 385 F.2d 279, 282–83 (D.C. Cir. 1967); *Anderson v. Dep't of Transp., FAA*, 827 F.2d 1564, 1570 (Fed. Cir. 1987) (per curiam).

The Eighth Circuit refused to consider the record as a whole in two respects. First, it considered the testimony of the experts piecemeal, rather than considering what a reasonable factfinder could have concluded had it heard the whole of what both experts had to say. Second, it did not weigh in the calculus of risks any of the substantial risks that the lethal injection protocol poses to Bucklew *before* the lethal drug is administered. Either error warrants reversal. The combined impact of both provides a particularly compelling need for a trial.

1. Considering only the risk Bucklew faces from lethal injection *after* the lethal drug is administered, a reasonable factfinder could conclude that lethal gas would substantially reduce that risk. Bucklew faces a risk of experiencing a sense of suffocation once he's rendered unconscious by either method, and loses the ability to manage breathing in light of the tumor that can block his airway. J.A. 822, 432, 460–61, 470–72, 463–66, 233–35. How long he will experience that sense of suffocation was the subject of dispute between the experts.

Bucklew's expert (Dr. Zivot) opined that Bucklew will experience a sense of suffocation for several minutes if lethal injection is used. J.A. 195–96. The State's expert (Dr. Antognini) disagreed; he believes that lethal injection would render Bucklew insensate to suffering within 20-30 seconds. J.A. 303. The district court acknowledged this dispute and accepted that a reasonable factfinder could conclude that Bucklew would experience a sense of suffocation for several minutes. J.A. 822–23, 826–27.

Dr. Zivot offered no opinion about how long he would experience a sense of suffocation from lethal gas. But Dr. Antognini opined that lethal gas would be "just like" lethal injection in this respect, meaning that Bucklew would experience a sense of suffocation for only 20-30 seconds. J.A. 456, 460.

In light of this record, a reasonable factfinder could credit Dr. Zivot with respect to the risk posed by lethal injection and credit Dr. Antognini with respect to the risk posed by lethal gas. Neither the district court nor the court of appeals doubted that a difference between 20-30 seconds of suffocating (likely including choking on one's own blood) and several *minutes* of the same is substantial. But the Eighth Circuit refused to examine the record that way.

The Eighth Circuit rejected Bucklew's argument because "his expert" did not compare the two methods himself. This novel single-witness requirement—for which the panel majority provided no citation—finds no basis in this Court's precedent. *Glossip*, at most, requires a comparison between the State's method and a petitioner's alternative method. *Glossip*, 135 S. Ct. at 2737. But it nowhere requires that a single witness compare the two, much less that the evidence distinguishing between the two come from an expert hired by the inmate.

In a typical civil case, the Eighth Circuit's approach to evaluating a summary judgment record would be merely wrong, but in a challenge to a method of execution, it is perverse. Meeting the single-witness requirement in this context would likely entail hiring an expert who is either unqualified or ethically unable to render the requisite opinion. Witnesses without medical training are likely unqualified to offer a relevant opinion, but those with the requisite medical training are likely to be unable, consistent with professional ethical standards, to propose an alternative method of execution that will substantially reduce the risk of suffering. *See Baze*, 553 U.S. at 64 (Alito, J. concurring) ("Prominent among the practical constraints that must be taken into account in considering the feasibility and availability of any suggested modification of a lethal injection protocol are the ethical restrictions applicable to medical professionals.") Here, for example, Dr. Zivot explained why he could not opine on a method of execution that would result in significantly less suffering than the lethal injection protocol proposed by the State: he is ethically barred from proposing a method of execution at all. J.A. 219–20.

There is no reason to insist that a factfinder accept or reject a witness's testimony *in toto*. This Court has long recognized that "[p]roof can be made in any form," *Graver Tank & Mfg. Co. v. Linde Co.*, 339 U.S. 605, 609 (1950), and indeed that a plaintiff can meet his burden "through presentation of his own case and through cross-examination of the defendant's witnesses." *St. Mary's Honor Ctr. v. Hicks*, 509 U.S. 502, 507–08 (1993) (citing *Tex. Dep't of Cmty. Affairs v. Burdine*, 450 U.S. 248, 256 (1981)). If cross-examination is to function as an "engine . . . for the discovery of truth," *California v. Green*, 399 U.S. 149,

158 (1970) (quoting 5 Wigmore, *Evidence in Trials at Common Law* § 1367 (3d ed. 1940)), the finder of fact must be permitted "to credit or discredit *all or part* of the testimony" presented to it. *Moore v. Chesapeake & Ohio Ry.*, 340 U.S. 573, 576 (1951) (emphasis added); *cf. Lavender v. Kurn*, 327 U.S. 645, 653 (1946) (explaining that, so long as there is an "evidentiary basis" for a jury's verdict, "the jury is free to discard or disbelieve whatever facts are inconsistent with its conclusion"). Otherwise, the truth-seeking function of the adversarial process will be distorted by a false assumption that each witness's testimony must be entirely reliable or entirely unreliable.

2. The Eighth Circuit gave no attention to the reasons to believe lethal gas will substantially reduce the risks Bucklew faces from a lethal injection protocol *before* the lethal drug is administered. As detailed above, Bucklew faces a number of severe risks that stem from the difficulty the execution team will have in gaining venous access. For example, there is the increased stress of multiple efforts, being subject to a cut down procedure to gain access through the femoral vein, and being forced to lie down during the painful cut down and thus having to manage his tumor's position in his throat as well as any bleeding from it so that he can breathe. *See supra* pp. 10–12. All of these risks would be eliminated or at least substantially reduced through a lethal gas protocol that would not require venous access at all. It was error for the Eighth Circuit to ignore that substantial reduction in risk.

IV. PETITIONER MET THE EVIDENTIARY BURDEN TO DEFEAT RESPONDENTS' MOTION FOR SUMMARY JUDGMENT REGARDING THE COMPARISON *GLOSSIP* REQUIRES OF LETHAL GAS AND LETHAL INJECTION.

When respondents moved for summary judgment in this case, they did not deny that lethal gas presented a readily available and feasible alternative method of execution. J.A. 827. At the summary judgment stage, Bucklew thus met his burden under *Glossip* to show a "feasible, readily implemented" alternative, 135 S. Ct. at 2737, based on respondents' failure to dispute the point. And Bucklew met his burden to show that this undisputedly available alternative would significantly reduce his risk of pain based on the evidence above, *see supra* Part III, including evidence that the lethal-gas alternative would allow Bucklew to avoid the suffering associated with having a prolonged period of suffocation, during which Bucklew is conscious and choking on his own blood.

Beyond this, nothing in *Glossip* required Bucklew to detail the specific procedures that would be used for a lethal gas execution. And this Court should not create a substantive legal obligation for an inmate raising a method-of-execution claim to do so either. While the record here provides ample reason to believe that lethal gas can be readily implemented, the State has greater resources to investigate how best to implement a method of execution, greater knowledge of the facilities available to it, and, ultimately, the final say on what procedures it is willing to undertake to execute someone. In short, the Court should not read the Eighth Amendment to require an inmate to design the specific details for his own execution.

A. Respondents Did Not Dispute That Lethal Gas Was A Feasible And Readily Available Alternative Method When Moving For Summary Judgment.

When respondents moved for summary judgment, they did not contest the availability and feasibility of nitrogen hypoxia as an alternative method of execution. J.A. 827. They argued only that no reasonable factfinder could conclude that nitrogen hypoxia would substantially reduce the risk of Bucklew's suffering. As a result of respondents' strategic choice, Bucklew had no obligation in opposing summary judgment to explain the factual basis for his assertion that lethal gas was a feasible and readily available alternative. *See Adickes v. S. H. Kress & Co.*, 398 U.S. 144, 159-61 (1970); *see also Ricci*, 557 U.S. at 586; *Matsushita*, 475 U.S. at 586. Instead, Bucklew properly focused on the comparative risk of suffering, and how a reasonable finder of fact could find, based on the record as a whole, that the lethal-gas alternative would substantially reduce a significant risk of severe pain. *See supra* Part III.

Respondents could have disputed the feasibility and availability of the lethal-gas alternative at summary judgment, but they made a strategic decision not to do so. Perhaps they were concerned about the optics of having ignored the Missouri legislature's express direction that they develop a protocol for lethal gas. *See* Mo. Rev. Stat. § 546.720. Indeed, the record indicates that respondents simply gave up after a mere Google search regarding the method. J.A. 490–92. Or perhaps they recognized that the record showed that administering lethal gas would be simple—there is reason to believe it would require little more than a secure mask. J.A. 736. Several other States have adopted lethal gas a permissible method of execution.

Okla. Stat. tit. 22, § 1014.B; Ala. Code § 15-18-82.1; Ariz. Rev. Stat. Ann. § 13-757.B; Cal. Penal Code § 3604; Miss. Code Ann. § 99-19-51(2); Wyo. Stat. Ann. § 7-13-904(b).

If Bucklew were required to show—notwithstanding respondents' failure to dispute the point—that lethal gas is feasible and readily available, the record would have been more than sufficient to persuade a reasonable finder of fact. But respondents made the strategic decision to concede the point and cannot now challenge the sufficiency of the evidence.

B. An Inmate Challenging His Method Of Execution Need Not Design The Protocols For His Own Execution.

There is nothing in *Glossip* or *Baze* that requires a prisoner to prove more than that an alternative method of execution that will significantly reduce the risk of severe pain is feasible and readily available. Even assuming the known-and-available-alternative requirement from *Glossip* and *Baze* is extended to as-applied challenges, there is no reason in this Court's prior decisions or any value reflected in the Constitution to require an inmate to do more than prove that a State *has* other available options. *How* a State implements those other options—the detailed protocols and procedures it adopts—are ultimately up to the State. An inmate need not specify every last step the State should take along the path to killing him.

First, States are in a much better position than inmates to develop the detailed protocols for execution. For example, not only does Missouri have experience crafting execution protocols, once it has developed a protocol, it closely guards information about its detailed procedures to prevent exposure to the public. *See, e.g.*, J.A. 889–997 (sealed procedures for

execution); *In re Ohio Execution Protocol Litig.*, 845 F.3d 231, 241–42 (6th Cir. 2016) (upholding a protective order cutting off discovery into the State's execution procedures because of the risk that disclosure would subject the State to "the risk of harm, violence, and harassment"), *cert. denied sub nom. Fears v. Kasich*, 138 S. Ct. 191 (2017). In contrast, prisoners have extremely limited access to resources, and they have no relevant expertise or experience in developing protocols for any aspect of prison administration, let alone protocols for execution. In any event, the development of detailed protocols often takes significant time and resources, even for the State.[6]

Second, as noted above, although an inmate may be able to find medical experts who are willing to provide testimony regarding the risk of suffering they face under an existing protocol, ethical constraints on medical professionals make it difficult to find anyone willing to assist an inmate in designing his execution.

Finally, forcing an inmate to design a detailed step-by-step protocol for his execution does nothing to advance the purpose of the known-and-available-alternatives requirement. Once it is clear that the

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[6] Oklahoma adopted nitrogen gas inhalation as a backup method of execution in April 2015, and announced in March 2018 that it would execute all death row inmates going forward using nitrogen gas. In the more than two and a half years since Oklahoma authorized execution by lethal gas, however, it has yet to develop a protocol for implementing an execution by nitrogen hypoxia. Mark Berman, *Oklahoma says it will begin using nitrogen for all executions in an unprecedented move*, Washington Post (Mar. 14, 2018), https://www.washingtonpost.com/news/post-nation/wp/2018/03/14/oklahoma-says-it-will-begin-using-nitrogen-for-all-executions-in-an-unprecedented-move/?noredirect=on&utm_term=.0959c8bbd9c0.

alternative that will avoid the imposition of severe pain is "feasible" and "readily implemented"—even if the details of its implementation have not all been worked out—then a State's "refusal to change its method can be viewed as 'cruel and unusual' under the Eighth Amendment." *Baze*, 553 U.S. at 52 (plurality opinion). The fact that an inmate has not determined exactly how many medical team members need to be in the execution chamber, what steps should be taken to secure his gas mask, or how he should be strapped to a chair or adjustable gurney—or any number of other details of the administration of his punishment for that matter—should not absolve the State of its cruel decision to let him suffer gratuitous pain when a much less painful alternative is known and readily available.

CONCLUSION

The judgment of the Court of Appeals should be reversed.

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No. 17-8151

IN THE
Supreme Court of the United States

RUSSELL BUCKLEW,

Petitioner,

v.

ANNE PRECYTHE, *et al.*,

Respondents.

On Writ of Certiorari to the United States Court of Appeals for the Eighth Circuit

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QUESTIONS PRESENTED

1. Whether the district court abused its considerable discretion in denying Petitioner Russell Bucklew's request for discovery into the training and qualifications of the execution team, when the evidence in the record demonstrated numerous safeguards in Missouri's execution procedure and established that any difficulty in accessing Bucklew's veins would constitute, at most, an isolated mishap, which does not implicate the Eighth Amendment.

2. Whether, in asserting an as-applied challenge to Missouri's method of execution, Bucklew must prove a known and available, readily feasible alternative method of execution, which this Court has recognized as "a requirement of all Eighth Amendment method-of-execution claims." *Glossip* v. *Gross*, 135 S. Ct. 2726, 2731 (2015).

3. Whether Bucklew met his burden of creating a genuine dispute of material fact on either of the *Glossip* elements, when he failed to identify an alternative method of execution with any specificity, proposed an untested alternative that has never been used, failed to provide evidence that his alternative method would be less painful, and failed to rebut the State's evidence that pentobarbital will swiftly render him deeply unconscious and insensate to any pain or suffering.

4. Whether petitioner met his burden under *Glossip* to prove what procedures would be used to administer his proposed alternative method of execution, the severity and duration of pain likely to be produced, and how they compare to the State's method of execution.

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INTRODUCTION

Justice is long overdue for Russell Bucklew. Over 22 years ago, in a vicious crime spree, Bucklew committed murder, attempted murder, kidnapping, rape, escape from jail, and assault. He was convicted and sentenced to death. He now seeks an effective exemption to the death penalty through an as-applied challenge to Missouri's method of execution.

Bucklew filed this lawsuit 12 days before his first scheduled execution in May 2014, claiming that Missouri's single-drug protocol for lethal injection will be "cruel and unusual" as applied to him because he has cavernous hemangioma. His claim was implausible from the outset. Missouri's single-drug protocol is the most humane and effective method of execution available. Pentobarbital, which Missouri uses for executions, will render Bucklew unable to feel pain within 20 to 30 seconds, and likely sooner. Missouri has conducted 20 pentobarbital executions with no indication of suffering.

By advancing this implausible claim, Bucklew has delayed his execution by over four years. He now asks this Court to revise the elements of method-of-execution claims and make it easier for inmates to bring as-applied challenges. His proposal would transform every as-applied challenge into a potential exemption from capital punishment. This Court should hold that both facial and as-applied challenges to a State's method of execution require the same elements, and that Bucklew failed to carry his burden of proof on those elements.

This Court should affirm the judgment and permit the State of Missouri to carry out Bucklew's lawful sentence without further delay.

STATEMENT OF THE CASE

I. Bucklew's Crime[1]

In February 1996, Bucklew's girlfriend, Stephanie Ray, told him she wanted to end their relationship. *Bucklew* v. *Luebbers*, 436 F.3d 1010, 1013 (8th Cir. 2006). "On March 6, 1996, Bucklew returned to the trailer that he and Ray had shared, where Ray was still living, and found Michael Sanders there." *Id.* at 1013. "Bucklew put a knife to Sanders' throat and threatened to kill him." *Id.*

"Later that evening, Bucklew found Ray and threatened her with a knife, cut her jaw, and punched her in the face." *Id.* "Bucklew called Ray at work the next day and vowed the he would kill her, Sanders, and her children if he found them together again." *Id.* "Ray felt it was unsafe to return to her home, so she and her children moved into Sanders' trailer." *Id.*

"Sometime during the night of March 20–21, Bucklew stole his nephew's car, two of his brother's pistols, two sets of his brother's handcuffs, and a roll of duct tape." *State* v. *Bucklew*, 973 S.W.2d 83, 86 (Mo. 1998). "By the afternoon of March 21, Bucklew began surreptitiously following Ray as she left work and ran errands, ultimately discovering where she lived by following her to Sanders's trailer." *Id.* At that time, Sanders and Ray were inside the trailer

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[1] This four-part article provides extensive background about the crime and the effect on the victims. Scott Moyers, *Penalty of Death*, SOUTHEAST MISSOURIAN (March 20–23, 2011), *at* http://www.semissourian.com/story/1712037.html; http://www.semissourian.com/story/1712093.html; http://www.semissourian.com/story/1712328.html; https://www.semissourian.com/story/1712661.html.

with four young children—Sanders' two sons, aged four and six, and Ray's two young daughters. Bucklew brought "at least 34 bullets" in multiple clips with him to the trailer. *Bucklew* v. *State*, 38 S.W.3d 395, 400 (Mo. 2001).

Bucklew knocked on the door of the trailer. *Bucklew*, 973 S.W.2d at 86. "Sanders saw Bucklew through a window, escorted the children to a back bedroom, and grabbed a shotgun," *id.*, which he barely knew how to use. Moyers, *supra* n.1 "Bucklew entered the trailer with a pistol in each hand. Sanders came into the hallway carrying the shotgun." *Bucklew*, 973 S.W.2d at 86. Bucklew "yelled 'get down' and without further warning began shooting at Sanders." *Id.* "Sanders fell, struck by two bullets, one of which entered his chest and tore through his lung." *Id.* "Bucklew aimed the gun at Sanders's head, but when he saw Sanders's six-year-old son, Bucklew fired at the boy instead. The shot missed." *Id.*

Ray "stepped between Bucklew and Sanders, who was holding his chest as he slumped against the wall." *Id.* Bucklew then "pistol-whipped [Ray], breaking her jaw, and knocking her to the kitchen floor in a semi-coherent condition." *Id.* at 91. He handcuffed Ray and dragged her into the stolen car. *Id.* at 86. Ray's two young daughters watched Bucklew abduct their mother, and as he took her away, "her children cried." *Id.* at 91.

In the stolen car, Bucklew drove Ray over 100 miles. Moyers, *supra* n.1. During the five-hour ordeal, Bucklew demanded oral sex from Ray while he drove. *Id.* He also "took her to a secluded spot and put a gun to her head and raped her while her

hands were taped in front of her body." *Bucklew*, 973 S.W.2d at 91.

During the abduction, Bucklew bragged to Ray that he "found it funny that he had killed Sanders and that he knew [Sanders] was dead because he had used hollow point bullets" to shoot Sanders. *Id.* (alterations omitted). He boasted that the murder scene "was so far out in the country that [the hollow-point bullets] would rip through [Sanders] and it would kill him before anybody had a chance to help him." *Id.* Bucklew also stated that "he was not going back to prison and would take as many police officers with him as he could in a shootout with police." *Id.* at 93.

"By this time law enforcement authorities had broadcast a description of the Bucklew car," and a Highway Patrol trooper "saw the car, called for assistance, and began following Bucklew." *Id.* at 86–87. Bucklew was apprehended after a car chase and a shootout with police, during which he menaced officers with a gun and fired at them. *Id.* at 87. During the shootout, Bucklew and Ray received gunshot wounds, and a trooper was injured by broken glass. Moyers, *supra* n.1.

In the meantime, "Michael Sanders bled to death from his wounds." *Bucklew*, 973 S.W.2d at 87.

While awaiting trial for murder, Bucklew "escape[d] from jail prior to trial, during which he attacked Ray's mother and her mother's fiancé with a hammer." *Bucklew*, 436 F.3d at 1014. His escape involved elaborate planning, as he lost 15 pounds—claiming to jailers that his cavernous hemangioma interfered with his ability to eat—to escape from jail concealed in a trash bag. Moyers, *supra* n.1. He then evaded a massive manhunt and concealed

himself in a closet in the home of Ray's mother and her fiancé. *Id.* When they returned to the home unsuspecting, he burst from the closet and attacked them with a knife and a hammer. *Id.*

Both before and after the murder, Bucklew amassed an "extensive criminal history including prior convictions for trespass, assault, burglary, stealing, driving while intoxicated, possession of marijuana, grand theft, assaulting past girlfriends, and escape from jail prior to trial." *Bucklew*, 436 F.3d at 1014.

II. Missouri's Single-Drug Execution Protocol

Missouri employs a single-drug protocol using a barbiturate, pentobarbital, which depresses the central nervous system, causing near-instantaneous unconsciousness. Pentobarbital renders the inmate deeply unconscious and insensate to pain within 20 to 30 seconds of administration, and probably much faster. J.A. 299–301, 304, 313, 325, 471–72. Missouri's single-drug protocol constitutes "the most humane and effective method of execution possible," and "the 'best practice.'" J.A. 705.

Since adopting the single-drug protocol in 2013, Missouri has administered 20 executions using pentobarbital. All "have been rapid and painless," with "the offender . . . seemingly unconscious within a few seconds." J.A. 526. "Numerous eyewitness observations of nineteen (19) executions in Missouri (from 11-20-13 to 5-11-16) indicate that pentobarbital has its intended effect: a rapid onset of unconsciousness followed by death." D.Ct. Doc. 182-1, at 219; *see also* Collin Lingo, *Mark Christeson Executed Almost 19 Years After Triple Murder*

Conviction, OzarksFirst.com (Jan. 31, 2017)[2] (describing the twentieth execution).

The execution team includes a nurse and an board-certified anesthesiologist, known as "M2" and "M3." J.A. 213, 833; *see also* J.A. 380, 531; *Zink* v. *Lombardi*, No. 2:12-CV-4209-NKL, 2013 WL 11762153, at *1 (W.D. Mo. June 18, 2013). These medical professionals "receive [the inmate's] medical records" before the execution, J.A. 627, not just a one-page summary of his health condition.

Missouri's protocol first requires medical personnel to divide five grams of pentobarbital into two syringes. J.A. 213. Five grams is "ten times the amount" needed to render a person comatose. J.A. 468–69. Then, the inmate is strapped to a gurney. J.A. 214. The gurney is adjustable, and the anesthesiologist is free to "adjust the gurney" if "that would be in the best medical interest of the offender." J.A. 531.

Once the inmate is situated, the medical personnel insert an IV into a peripheral or central vein. J.A. 214. Both nurses and anesthesiologists are trained to access peripheral veins, and anesthesiologists are trained to access central veins. J.A. 336, 463.

Although Bucklew has suboptimal peripheral veins in his arms, nothing in the protocol requires use of a peripheral vein. The protocol instructs the team to insert the IV in "the most appropriate locations," and provides that "[m]edical personnel may insert the primary IV line as a peripheral line or as a central venous line (e.g., femoral, jugular, or

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[2] https://www.ozarksfirst.com/news/mark-christeson-executed-almost-19-years-after-triple-murder-conviction/648046088.

subclavian) provided they have appropriate training, education and experience for that procedure." J.A. 214. Bucklew's expert agrees that "a medical professional will typically start by trying to place the needle in the best available vein." J.A. 231. And "there is no evidence in the Record establishing that [Bucklew] has any problem with his veins *other* than his peripheral veins." J.A. 821 (emphasis in original).

Similarly, nothing in the protocol mandates a "cutdown" procedure. J.A. 213–15. A cutdown is used in the rare occasion where *no* vein is accessible, not even a central vein, such as an emergency room patient with severe trauma. J.A. 346. Bucklew does not dispute that his central veins can be used for IV access, J.A. 821, and the femoral vein is "easily accessed." J.A. 350. Further, no evidence in the record suggests that the peripheral veins in Bucklew's feet or legs are unsuitable.

Bucklew discusses the possibility of a vein rupturing, Br. 11, but his expert conceded that, because central veins are so large, medical personnel can use those veins "without serious risk of rupture." J.A. 863. Bucklew's expert testified that it "seemed unlikely" that a femoral vein would rupture during lethal injection. J.A. 148.

Once an IV is inserted, nonmedical personnel inject the chemicals "under the observation of medical personnel." J.A. 214. Medical personnel then examine the inmate and confirm that death has occurred. J.A. 215.

The protocol includes numerous features designed to minimize risk. As in *Baze*, medical personnel must "establish both primary and backup [IV] lines" and "prepare two sets of the lethal

injection drugs." *Baze* v. *Rees*, 553 U.S. 35, 55 (2008) (plurality opinion) (praising these "redundant measures"); J.A. 213–14. Similarly, just as in *Glossip*, the medical personnel "must confirm the viability of the IV sites" and "monitor [the] inmate." *Glossip* v. *Gross*, 135 S. Ct. 2726, 2742 (2015). The execution team adjusts the gurney "so that medical personnel can observe the prisoner's face," and the medical personnel continuously observe the team members who inject pentobarbital. J.A. 214–15.

III. Bucklew's Medical Condition

A. Bucklew's cavernous hemangioma

Bucklew has a rare medical condition known as cavernous hemangioma. Hemangioma refers to localized excesses of blood vessels, which usually resolve without treatment. A. Munden, et al., *Prospective Study of Infantile Hemangiomas: Incidence, Clinical Characteristics and Association with Placental Anomalies*, 170(4) BR. J. DERMATOL. 907, 907–13 (2014).[3] Variants of hemangioma occur in at least 10 percent of the population. *Id.* Bucklew's rarer variant—cavernous hemangioma—causes some blood vessels in acute regions to dilate and widen. J.A. 224–25. This dilation causes the vessel walls to weaken in some areas, allowing blood seepage. J.A. 224–25.

Some of Bucklew's vessel growths are near the airway, in his mouth and on his uvula. Although Bucklew asserts that minor irritations such as "snoring and eating chips" can cause blood to seep,

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[3] https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4410180/pdf/nihms597331.pdf.

Br. 5, on the "typical" night, he sleeps through any blood seepage. *Id.* at 6–7; J.A. 227. In 12 years of treating Bucklew, his primary-care doctor has "never seen [Bucklew] present with a bleed. . . . I've never seen a bleed." J.A. 641–42. Bucklew has also never shown signs of having trouble breathing while with his doctor, and he does not display "respiratory distress or difficulty breathing" while seeking prison medical care. J.A. 643.

Bucklew has experienced this condition for several decades, and some vessels have grown worse. J.A. 224–25. But the growth near his airway shrunk nearly ten percent between 2010 and 2016. J.A. 238.

B. Bucklew's evolving theories of how lethal injection will affect him

Throughout this case, Bucklew has asserted at least eight different theories to explain how his cavernous hemangioma will render his execution by lethal injection unconstitutionally cruel.

First, the Fourth Amended Complaint alleged that (1) Bucklew's condition would interfere with circulation, delaying the effect of pentobarbital. *See* J.A. 64–65; *accord* J.A. 45, 47, 56, 62, 67, 73, 84. Bucklew's expert admitted that there was no evidence to support this theory, J.A. 179–80, even though the same expert had submitted a sworn affidavit advancing the theory. J.A. 65, 92. "[T]he Record confirms that Plaintiff's medical condition will not affect the flow of chemicals in his bloodstream once they are introduced through the femoral vein, or otherwise affect his expected response to the pentobarbital." J.A. 821. Bucklew has abandoned this theory.

To support this theory, the Fourth Amended Complaint alleged that lethal gas was preferable to lethal injection because "lethal gas will bypass Mr. Bucklew's impaired circulatory system." J.A. 43; *see also* J.A. 53. But this allegation contradicted elementary biology. "The use of various gases . . . work by the gas entering the lungs, and then being transported by the circulatory system." J.A. 256. Bucklew has abandoned this theory as well.

The Fourth Amended Complaint also alleged the following additional theories: (2) that Bucklew faced "a substantial risk of an adverse drug interaction during an execution by lethal injection," J.A. 48, 66, 68; (3) that the veins in his head and throat could easily rupture during the execution, J.A. 62, 73; (4) that the use of "methylene blue," a dye used to check IV lines, would "cause a rise in blood pressure" during the execution, rupturing Bucklew's hemangiomas, J.A. 49, 66, 75; and (5) that, *without* the use of methylene blue, "the lethal drug will not properly enter Mr. Bucklew's veins," J.A. 62, 76–77. Bucklew has abandoned these theories as well.

Bucklew's complaint also alleged (6) that lethal injection poses unique risks because he cannot lie "supine"—that is, flat on his back—"without suffocating." J.A. 70, 78; *accord* J.A. 226. But then, "[i]n December 2016, Bucklew lay supine for over an hour undergoing an MRI, with no more than discomfort." J.A. 864. Bucklew "was able to tolerate an MRI, he was supine for more than hour," so he is able . . . to lie supine." J.A. 385. Bucklew's medical notes also report that "he has been seen to sleep supine." J.A. 254.

Bucklew then advanced the theory (7) that his uvula completely obstructs his throat when he lies

flat, but that he can "manage his airway" by swallowing to move his uvula so long as he is conscious. J.A. 228, 390. To explain the importance of not lying supine, he asserted that pentobarbital would create a "twilight stage," J.A. 233–34—a time period where the chemical would supposedly render him immobile and unable to swallow, but leave him able to feel the pain associated with suffocation. J.A. 863. This supposed "twilight stage" was not alleged in his complaint. *See* J.A. 42–94.

Bucklew's "twilight stage" theory was his central argument before the Eighth Circuit. Both the majority and dissenting opinions understood that Bucklew could not prevail if he could not prove that he would be forced to lie supine. J.A. 868 (majority opinion); *see also* J.A. 872–73, 875 (dissenting opinion). The Court of Appeals ruled against Bucklew because the pleadings and the record established that he will not be forced to lie supine. J.A. 861 & n.3. Bucklew alleged in his Fourth Amended Complaint that the State had "offer[ed] to adjust the gurney so that Mr. Bucklew is not lying completely [supine]," and the State's Answer admitted that "Defendants offered to have the anesthesiologist position the angle of the gurney in a proper position." J.A. 861 & n.3. "Thus, this fact was established by the pleadings." *Id.* Moreover, "the Department will adjust the gurney so that Mr. Bucklew is not lying fully supine at the time the Department administers the lethal chemicals." J.A. 882. Testimony in the record also indicated that Bucklew will not have to lie supine. J.A. 531.

Bucklew has now apparently abandoned this theory as well. His opening brief does not mention the "twilight stage," and it argues that he will choke

and suffocate "regardless of his position—whether lying flat, upright, or anything in between." Br. 12. Instead, Bucklew's current theory (number 8) contends that difficulties accessing his peripheral and central veins will cause stress leading to the bleeding and rupture of his hemangioma. Br. 10–13.

Once again, the record contains no evidence supporting this theory. Bucklew focuses on the peripheral veins in his arms, Br. 7, but he expressly "concede[d] that there is no evidence in the Record establishing that Plaintiff has any problem with his veins *other* than his peripheral veins, including his femoral vein." J.A. 821 (emphasis in original). Bucklew's expert, Dr. Zivot, provided no evidence showing that Bucklew's *central* veins were problematic. J.A. 183–84. Central veins extend from the shoulders (subclavian), to the upper thigh and groin (femoral), and throughout the leg to the ankle (saphenous). J.A. 335, 347–48. The femoral vein is "easily accessed." J.A. 350. Furthermore, peripheral veins in the foot can be used to insert an IV, J.A. 337, and Bucklew has never provided any evidence that these veins are problematic.

The record also fails to support Bucklew's claim that he will likely endure a cutdown procedure. A cutdown procedure is not necessary to access a central vein, J.A. 185–86, 346–47; and the anesthesiologist on the medical team is trained to access central veins, J.A. 463.

Moreover, medical personnel have successfully inserted IV lines into Bucklew's veins while he lay supine numerous times in the past. J.A. 252. "[B]etween 2000 and 2003, Bucklew underwent general anesthesia eight times, at least once in a supine position." J.A. 864. In fact, Bucklew now

says he obtained a tracheotomy, which requires an IV, just last month. Br. 7 n.2.

Bucklew's current theory also alleges that, once pentobarbital is administered, he "will soon lose the ability to manage his airway," regardless of whether he is "lying flat, upright, or anything in between." Br. 12. But he previously insisted that he must actively swallow to manage his airway when *supine*. J.A. 228, 849, 863. No evidence suggests he has to swallow to manage his airway *all the time*. *See* J.A. 641–43. Bucklew has no need to "manage his airway" unless it is blocked. There is no reason to think that his airway will be blocked by his uvula if he is not supine. And no evidence demonstrates any likelihood of failed attempts to access his veins.

To the extent that Bucklew urges that "the stress of the execution" itself will cause his tumor to rupture, Br. 12, this concern is not unique to lethal injection. In fact, Bucklew pleaded that the stress of *any* execution would cause his tumors to rupture. *See* J.A. 78, 84–85. Because Bucklew admitted he would likely experience such breathing difficulties under any method of execution, this theory fails to identify any problem that nitrogen could fix.

No doubt, in his reply brief, Bucklew's theory will evolve again. If so, it will become the ninth meritless theory that he has advanced in this case.

All of Bucklew's theories suffer from the same deficiency—they all presume that he will remain able to feel pain for a prolonged period after administration of pentobarbital. No competent evidence supports this presumption, and "overwhelming evidence" contradicts it. J.A. 325. Pentobarbital will induce a deep, coma-like unconsciousness in Bucklew within 20-30 seconds,

and probably much sooner. J.A. 299–301, 402, 430–33, 440, 471–72. Once in this state, Bucklew will not be able to suffer pain from choking, bleeding, or any other source. J.A. 454, 456, 466. Thus, Bucklew's contention that "[i]t is undisputed that Bucklew will experience pain and suffering under Missouri's lethal injection protocol," Br. 10, is plainly misleading. *See* D.Ct. Doc. 200, at 4. The *only* pain that Bucklew will likely experience is the minor discomfort associated with inserting an IV. Once the pentobarbital enters his system, Bucklew will become swiftly oblivious to pain and suffering. J.A. 281, 286–87, 362, 389, 430.

IV. Bucklew's Proposed Alternative Procedure

In his Fourth Amended Complaint, Bucklew identified "lethal gas" as an alternative procedure. J.A. 52–53. Bucklew provided no details about his proposed procedure in the complaint, and his brief provides no details either, except to speculate that the State could deliver nitrogen with a gas mask and a canister. Br. 15.

Consistent with its decision to employ only the most humane method possible, Missouri uses lethal injection and has not used lethal gas since 1965. J.A. 667. Missouri's gas chamber "is no longer functioning" and sits in "a museum." J.A. 487.

Bucklew speculates that nitrogen might be administered through a gas mask, Br. 51, but Missouri officials are unaware of any instance of a State using a gas mask in an execution. Bucklew's expert reportedly stated: "Nothing is known about what might happen if the prisoner resists by thrashing or breaking the seal of his mask." Eli Hager, *Why Oklahoma Plans to Execute People With*

Nitrogen, THE MARSHALL PROJECT (March 15, 2018).[4] Moreover, unlike other methods, lethal gas may pose potential risks to witnesses and medical personnel. J.A. 492. It is unknown whether using a gas mask would aggravate those risks.

No State has ever conducted an execution by nitrogen hypoxia. Indeed, to date, no State has developed a method for doing so. When Missouri used lethal gas, it used cyanide gas, not nitrogen. J.A. 668. Oklahoma has announced that it intends to develop a protocol for lethal nitrogen, and other States may do so as well. But Bucklew concedes that Oklahoma has not yet done so, despite researching lethal nitrogen since 2015. Br. 53 n.6; *see also* Janelle Stecklein, *Execution Protocol Misses Deadline with No Planned Date to Resume*, THE NORMAN TRANSCRIPT (Aug. 8, 2018) (noting that Oklahoma has postponed the deadline to develop a protocol for lethal nitrogen).[5]

One Missouri official researched the feasibility of lethal gas, but he determined that "the research available was not sufficient" to address several unanswered questions. J.A. 491–92. These questions included "which gas is better," "what quantity or quality would I need to use," "[h]ow long it would take" to effect the execution, "the safety of the environment around it . . . for the individuals who are witnessing the execution," and "[d]elivery methods." *Id.*

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[4] https://www.themarshallproject.org/2018/03/15/why-oklahoma-plans-to-execute-people-with-nitrogen.

[5] http://www.normantranscript.com/news/execution-protocol-misses-deadline-with-no-planned-date-to-resume/article_e56b8ff1-b758-5a59-baeb-734fdc7018e9.html.

V. Procedural History

A. Bucklew delays bringing this suit.

In 2008, Bucklew retained an expert to review his medical records. That expert opined that Bucklew's cavernous hemangioma would interfere with circulation, prolonging any lethal injection. J.A. 658. Bucklew sought "to demonstrate, through expert medical services, that Missouri's method of execution, *as applied uniquely to Mr. Bucklew*, may constitute cruel and unusual punishment." J.A. 657 (emphasis in original).

Despite knowing the factual basis for his as-applied claim in 2008, Bucklew declined to assert that claim in a federal-preemption challenge to lethal injection in 2009. *Ringo* v. *Lombardi*, 677 F.3d 793, 795–96 (8th Cir. 2012). Then, when Bucklew brought a facial challenge to Missouri's lethal-injection protocol in 2012, he again declined to bring his as-applied challenge. *Zink* v. *Lombardi*, 12-04209-CV-C-BP (W.D. Mo. May 2, 2014).

Instead of asserting his as-applied claim in *Zink*, he filed this lawsuit—six years after he said he had an as-applied challenge and just 12 days before his scheduled execution. The statute of limitations is five years. Mo. Rev. Stat. § 516.120(4); *Wilson* v. *Garcia*, 471 U.S. 261, 266–68 (1985). Bucklew did not request permission from the district court to split his two theories (facial and as-applied) into two different lawsuits. On May 16, 2014, the district court in *Zink* dismissed his facial challenge with prejudice in a final judgment on the merits. *Zink*, Doc. 443, at 2. The Eighth Circuit affirmed. *Zink* v. *Lombardi*, 783 F.3d 1089, 1103 (8th Cir. 2015) (en banc).

B. Bucklew files five complaints.

The district court dismissed the first of Bucklew's five complaints because he declined to plead an alternative method of execution. *Bucklew* v. *Lombardi*, No. 14-8000-CV-W-BP, 2014 WL 2736014, at *6–7 (W.D. Mo. May 19, 2014). Bucklew's decision to delay suing until 12 days before his scheduled execution had left him no time to appeal, and this Court stayed his execution "pending disposition of petitioner's appeal." *Bucklew* v. *Lombardi*, 134 S. Ct. 2333 (2014). The Court of Appeals held that the plaintiffs raising as-applied challenges must plead an alternative method of execution. *Bucklew* v. *Lombardi*, 783 F.3d 1120, 1128 (8th Cir. 2015) (en banc).

The Court of Appeals instructed Bucklew to plead an alternative method of execution, but he refused to do so during three more attempts. J.A. 24, 25–26, 37. The district court then gave a "fifth and last . . . opportunity to correctly plead." J.A. 40. Bucklew's Fourth Amended Complaint then pleaded that the State could use "lethal gas," without further specification. J.A. 43.

C. The district court rejects Bucklew's attempt to obtain irrelevant discovery.

Bucklew "proposed massive discovery," J.A. 862, comprising "six broad categories," J.A. 121, including "identities of the execution team's medical members," J.A. 869. He also sought information about their qualifications and experiences; the "development" of the execution protocol; information about procurement, prescriptions, inventory, expiration dates, and attempts to obtain chemicals; and

information about maintenance, storage, and security of chemicals. J.A. 116–26.

The district court granted Bucklew "extensive discovery." J.A. 866. Among other things, it allowed him to discover information about the identity of the chemical to be used, its expected effect, the general composition of the medical team and functions of those persons, information about how the State had used cyanide gas, and information about the State's research into the feasibility of using nitrogen. J.A. 116–26.

But the district court rejected Bucklew's attempt to inquire into the identities, training, and qualifications of the medical personnel, because that information was irrelevant or at least disproportionate to the needs of the case. The district court determined that the information might have been relevant to Count II in the Fourth Amended Complaint—which alleged inadequate training and preparation—but that count had been dismissed with prejudice. J.A. 124. Bucklew could not rely on Count I, the district court held, because that "claim does not depend upon either the manner in which a lethal injection is performed or the qualifications of the execution team members." J.A. 664. In support of Count I, Bucklew had repeatedly pleaded that "*any* means of lethal injection" would be unconstitutional. J.A. 43 (emphasis in original); *accord* J.A. 49, 52, 72, 77, 84. And he never alleged that there would be difficulties accessing his veins. The district court concluded that the qualifications and identities of the execution team had little or no relevance. J.A. 664–65.

D. The district court grants summary judgment.

The district court granted the State's motion for summary judgment on Bucklew's sole remaining count. J.A. 817–32. Among other things, the district court held that "the use of Plaintiff's femoral vein does not present any risk of serious illness or needless suffering," and that "the Record establishes" that a central line can be inserted into Bucklew's femoral vein "without the risk of complications attributable to Plaintiff's congenital condition." J.A. 825. The district court noted that Bucklew had failed to "discuss Defendant's evidence that his femoral vein can be used to administer the execution drugs." *Id.* Bucklew "concede[d] that there is no evidence in the Record establishing that Plaintiff has any problem with his veins *other* than his peripheral veins." J.A. 821 (emphasis in original).

The district court granted summary judgment for the State because the record lacked any evidence that nitrogen hypoxia would significantly reduce Bucklew's alleged risk of severe pain. J.A. 830. The court held that "[t]here is no evidence suggesting that nitrogen hypoxia will be faster than pentobarbital, so there is no factual dispute to resolve." J.A. 830.

E. The Court of Appeals affirms.

The Eighth Circuit affirmed. The Court of Appeals determined that lying supine was central to Bucklew's claim, so he had to prove he would be forced to lie supine for lethal injection but not lethal gas. J.A. 863, 868. The court determined that this "argument lack[ed] factual support," J.A. 868, and

that the pleadings established that he would not have to lie supine. J.A. 861 & n.3.

Second, the Court of Appeals determined that the record did not include any evidence demonstrating that nitrogen would work faster than pentobarbital. J.A. 867–68. Contrary to Bucklew's suggestion, the court did not create a "single-witness rule." Br. 24. Instead, like the district court, it held that the record lacked any "*comparative* evidence" demonstrating that nitrogen would operate more quickly than pentobarbital. J.A. 867–68 (emphasis in original).

The dissenting opinion reasoned that a genuine dispute of fact could be created by selectively crediting different portions of Dr. Zivot's and Dr. Antognini's statements. J.A. 877. The dissenting opinion also concluded that there was a genuine factual dispute about whether Bucklew would be required to lie supine during the execution. J.A. 875.

SUMMARY OF ARGUMENT

This Court may affirm on any basis supported by the record, and it has a wealth of options here.

I. Bucklew failed to create a genuine dispute of fact under either of the two *Glossip* elements.

A. Bucklew failed to create a genuine dispute under the second *Glossip* element, which requires a "known and available alternative method[]" of execution. *Glossip*, 135 S. Ct. at 2738.

1. "Nitrogen hypoxia," without more, does not identify a "method" of execution. No State has ever executed an inmate using lethal nitrogen, and no protocol to do so exists at this time. A proposed method of execution that "has never been tried by a single State," *Baze*, 553 U.S. at 62, does not satisfy

the second *Glossip* element. To be sure, Oklahoma and other States may develop a valid protocol for lethal nitrogen, but even if they do so, Missouri would not be obligated to adopt it, especially not before it is thoroughly tested.

2. Bucklew also failed to provide any evidence of the severity and duration of pain from lethal nitrogen, and thus he failed to provide any meaningful basis for comparison with lethal injection. Because Bucklew failed to provide any details about how nitrogen gas would be administered, neither expert could provide any opinion about how quickly nitrogen would render Bucklew insensate to pain. Dr. Antognini testified that, depending on the method of administration, nitrogen "could . . . cause a lot of suffering," and "you might get more suffering from nitrogen gas than you would have Pentobarbital." J.A. 460.

3. Bucklew contends that the State "conceded" the feasibility and availability of lethal nitrogen by failing to dispute these questions in the district court, but the State's summary-judgment briefs vigorously disputed these issues. D.Ct. Doc. 182, at vi, 8–9; D.Ct. Doc. 200, at xxii, 7. In fact, in the district court, Bucklew himself stated that "there is a genuine issue of material fact as to whether lethal gas, including nitrogen hypoxia, is an available and feasible alternative method of execution." D.Ct. Doc. 199, at 20; *see also id.* 20–23.

B. Bucklew also failed to create a genuine factual dispute under the first *Glossip* element, because he failed to provide evidence that he is "sure or very likely" to experience severe pain from lethal injection. *Glossip*, 135 S. Ct. at 2737 (quoting *Baze*, 553 U.S. at 50).

1. Bucklew failed to provide any evidence to show when pentobarbital would render him insensate to pain. The only estimate that his expert provided—52 to 240 seconds—referred to the time when pentobarbital would induce an "isoelectric EEG," which occurs long after a person becomes unable to feel pain. And even this 52-to-240-second estimate directly contradicted the study from which it was derived. Bucklew failed to create a genuine dispute with Dr. Antognini's testimony that pentobarbital would render Bucklew deeply unconscious and insensate to pain within 20-30 seconds, and probably much sooner.

2. Bucklew's theory of suffering from lethal injection hinges on his speculation that the execution team will botch multiple attempts to access his veins or commit other errors, causing stress that will rupture his tumors. Br. 10–13. Given the participation of a board-certified anesthesiologist and numerous other safeguards, any failed attempt to access Bucklew's veins or other unintended error would constitute "an isolated mishap" that "does not give rise to an Eighth Amendment violation, precisely because such an event, while regrettable, does not suggest cruelty." *Baze*, 553 U.S at 50 (quoting *Farmer* v. *Brennan*, 511 U.S. 825, 842 (1994)).

3. Missouri has several "legitimate penological justification[s]" to proceed with pentobarbital. *Baze*, 553 U.S. at 52. The State has an interest in waiting until a novel method is thoroughly tested before adopting it. Missouri also has an interest in "preserving the dignity of the procedure" by avoiding symptoms that "could be misperceived as signs of consciousness or distress." *Baze*, 553 U.S. at 57.

Whether nitrogen might raise such concerns is unknown. In addition, Missouri is entitled to proceed cautiously before adopting a procedure that might provoke public discomfort or outrage because of the historical associations of lethal gas.

II. Bucklew seeks to avoid these deficiencies of proof by arguing that the alternative-method element should not apply to as-applied challenges at all, but this argument has no merit. *Glossip* announced that proving an alternative method is "a requirement of *all* Eighth Amendment method-of-execution claims." *Glossip*, 135 S. Ct. at 2731 (emphasis added). The requirement is a "substantive element[]" of all such claims, *id.* at 2739, and thus it must be established whether the claim is facial or as-applied. In fact, the alternative-method requirement is essential to establishing that state officials acted with a culpable state of mind and intended to inflict "pain for the sake of pain." *Baze*, 553 U.S. at 48. Eliminating this element would permit as-applied challengers to seek a *de facto* exemption from the death penalty, contrary to this Court's instruction that "capital punishment is constitutional" and "there must be a means of carrying it out." *Id.* at 47.

III. Bucklew contends that the district court erred by preventing discovery into the execution team's training and qualifications. On the contrary, the discovery sought was irrelevant because it related to possibilities of accidents or isolated mishaps during Bucklew's execution, such as failed attempts to access his veins. As discussed above, given Missouri's numerous safeguards, any such error would be an "isolated mishap" that does not violate the Eighth Amendment. In addition, the district court had dismissed the only count to which

the discovery sought was relevant, and Bucklew never appealed that decision. Because existing evidence showed that Bucklew's various theories greatly overstated the risks of accidents, additional discovery would not have been proportional to the needs of the case, and it would have served only to burden and harass the members of the execution team. In any event, any error was harmless because Bucklew failed to provide any evidence of an alternative method of execution.

IV. Bucklew's claim is barred by the five-year statute of limitations, because he was aware of the factual basis for his as-applied challenge in 2008, but he did not file this lawsuit until 12 days before his scheduled execution in May 2014. His claim is also barred by *res judicata*, because he could have raised his as-applied challenge in the earlier-filed *Zink* case, which has reached final judgment. By choosing to split his claims, he assumed the risk that *Zink* would reach final judgment first, barring his claim.

ARGUMENT

I. Bucklew Failed to Provide Evidence Creating a Genuine Dispute of Fact Under Either *Glossip* Element.

To establish a method-of-execution claim, Bucklew must (1) prove that pentobarbital is "sure or very likely" to cause "objectively intolerable," "needless suffering." *Glossip*, 135 S. Ct. at 2737 (citations omitted). Bucklew must also (2) "identify a known and available alternative method of execution that entails a lesser risk of pain, a requirement of all Eighth Amendment method-of-execution claims." *Id.* at 2731. "To qualify, the alternative procedure must

be feasible, readily implemented, and in fact significantly reduce a substantial risk of severe pain." *Baze*, 553 U.S. at 52.

"[W]here the nonmoving party will bear the burden of proof at trial on a dispositive issue," that party must provide affirmative evidence to "designate 'specific facts showing that there is a genuine issue for trial.'" *Celotex Corp.* v. *Catrett*, 477 U.S. 317, 324 (1986) (quoting Federal Rule of Civil Procedure 56(e)). Bucklew failed to provide evidence sufficient to create a "genuine issue for trial" on either of *Glossip*'s two elements. *Id.*

A. Bucklew failed to establish a known and available, readily feasible alternative method of execution.

Under the second *Glossip* element, Bucklew failed to carry his burden of proving what procedures would be used in his proposed alternative method of execution, the severity and duration of pain they would cause, and how that procedure compared to the State's method of execution.

1. Bucklew failed to identify any known and available "method" or "procedure" for lethal nitrogen.

First, Bucklew has never identified any known and available "method" or "procedure" of execution by nitrogen gas.

Baze and *Glossip* require Bucklew to identify an alternative "procedure," *Baze*, 553 U.S. at 52, or "method," *Glossip*, 135 S. Ct. at 2738, of execution. The method or procedure must be "known and available." *Id.* And the plaintiff must identify it with sufficient specificity to provide a meaningful

basis to assess the expected pain the proposed alternative will cause. *Baze*, 553 U.S. at 52; *Glossip*, 135 S. Ct. at 2737.

"Nitrogen hypoxia," without more, does not identify a "method" or "procedure" of execution. "Nitrogen hypoxia" is an agent, not a procedure. Any meaningful assessment of the risk of pain from nitrogen requires specific details about the method, rate, quantity, quality, concentration, delivery, and timing of its administration. *See* J.A. 490–92. For example, the State's expert, Dr. Antognini, testified without contradiction that nitrogen "could be introduced very slowly and cause a lot of suffering." J.A. 460. "[D]epending on—on how it's used, you might get more suffering from nitrogen gas than you would have from Pentobarbital. Or you might get less suffering." J.A. 460–61. Because he did not "know how quickly a gas is introduced" in a nitrogen-hypoxia execution, J.A. 460, any opinion about how quickly nitrogen would work would be "not . . . as well founded." J.A. 461.

Dr. Zivot did not disagree. Rather, he testified that "there's no way to ethically or practically test if nitrogen gas is a humane alternative," and thus "there's no way to tell if nitrogen gas would not be cruel." J.A. 158–59.

Thus, Missouri cannot conduct a nitrogen execution without knowing the quality and concentration of nitrogen needed. J.A. 491–92. But Bucklew provided no evidence to address any of the critical questions about "how it's used." J.A. 460. The record lacks any evidence about "the quantity or the concentration of the gas," or "what quantity or quality [the State] would need to use." J.A. 492.

Similarly, the degree of suffering from nitrogen hypoxia depends on "how quickly a gas is introduced." J.A. 460. Improper speed of administration during an execution could "cause a lot of suffering." *Id.* Experts on euthanizing animals with gases agree that knowing how quickly to disperse gas is "absolutely necessary" and is "critical to the humane application of inhaled methods." S. Leary, *et al.*, *AVMA Guidelines for the Euthanasia of Animals* 20 (2013).[6] Likewise, Dr. Zivot has admitted that a State cannot use lethal nitrogen without knowing "whether the nitrogen should be released gradually or all at once." Hager, *supra*. According to Dr. Zivot, "[n]o medical research exists" to address these critical questions. *Id.*

Bucklew also failed to provide any competent evidence to address "[d]elivery methods" for nitrogen, to answer whether the State would "need an actual chamber or would some kind of face mask or gas mask be sufficient," and "[i]f it was, what were the requirements of that." J.A. 491.

Bucklew suggests that administration of nitrogen "would require little more than a secure mask." Br. 51 (citing J.A. 736). But the report that he cites actually states that "the exact protocol and nitrogen delivery device have not been finalized," that "[o]ptions for the nitrogen delivery device include a mask or device similar to an oxygen tent house," and that "[r]esearch as to the best method of delivery is ongoing." J.A. 736. Bucklew's expert, Dr. Zivot, has agreed: "Nothing is known about what might happen if the prisoner resists by thrashing or breaking the seal of his mask." Hager, *supra*. To use

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[6] https://www.avma.org/KB/Policies/Documents/euthanasia.pdf.

lethal nitrogen, Missouri "would need to consider a protocol that is more elaborate than merely purchasing a hood or mask; Missouri would need time to develop a protocol to address risk of oxygen entering the hood; and Department of Corrections personnel would need to be trained on the process." D.Ct. Doc. No. 51, *Johnson* v. *Lombardi*, No. 2:15-CV-4237-DGK (W.D. Mo. May 1, 2017), at 10–11.

Any execution protocol for nitrogen would also have to address "the safety of the environment around" the execution "to protect . . . the individuals who are witnessing the execution." J.A. 492. Bucklew provided no evidence about how to minimize the risk of lethal gas leaks to observers. Nitrogen gas is odorless, colorless, difficult to detect, and deadly in high concentrations. For this reason, "Oklahoma officials may be grappling with concerns about how to safely administer the deadly, odorless gas without poisoning prison employees and execution bystanders." Stecklein, *supra*.

Therefore, Bucklew's proposed alternative is both vague and untested. But *Baze* emphasized that a plaintiff cannot bear his burden by relying on "untested alternative procedures." *Baze*, 553 U.S. at 54. A proposed method of execution that "has never been tried by a single State," *id.* at 62, and that "[n]o state uses or has ever used," *id.* at 53, does not suffice. *See id.* at 67 (Alito, J., concurring). Here, "nitrogen hypoxia ha[s] never been used to carry out an execution," and has "no track record of successful use." *McGehee* v. *Hutchinson*, 854 F.3d 488, 493 (8th Cir. 2017). Missouri's "continued use of the [one-drug] protocol cannot be viewed as posing an 'objectively intolerable risk' when no other State" has executed a prisoner by nitrogen hypoxia, and

Bucklew has "proffered no study showing that it is an equally effective manner of imposing a death sentence." *Baze*, 553 U.S. at 57.

2. Bucklew failed to provide evidence of the severity and duration of pain caused by nitrogen gas.

Bucklew failed to provide evidence of the severity and duration of pain that he might endure during execution by nitrogen, and thus he failed to provide any meaningful basis for comparison with lethal injection.

Bucklew contends that "there is reason to believe that breathing 100% nitrogen does not produce a sense of suffocation." Br. 16. But even if true, this contention is beside the point. Pentobarbital does not create a sense of suffocation, and Bucklew does not contend otherwise. He contends that he will suffocate on his tumor or blood, because he predicts that his hemangioma will block his airway and/or rupture during his execution. Br. 10–13. If his airway became blocked during an execution by nitrogen, that blockage would also produce a sense of suffocation, because he would be "unable to expel air." Br. 16. Therefore, the relevant question is not whether nitrogen induces a sense of suffocation. The relevant question is whether and how quickly pentobarbital and nitrogen, respectively, would render Bucklew insensate to the pain that he predicts from his blocked airway.[7] *See* J.A. 830.

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[7] For the same reason, Bucklew's assertion that high-altitude pilots do not experience feelings of suffocation when breathing in air low in oxygen is beside the point. Br. 16. Moreover, the district court refused to credit this argument when Bucklew presented it below and expressed "concern[]" that Bucklew tried

On this question, Bucklew provided no evidence. Neither Dr. Antognini nor Dr. Zivot provided any evidence to address how long it would take Bucklew to become unable to feel pain during an execution by nitrogen. Dr. Zivot testified that "there's no therapeutic use of nitrogen gas and there's no way to ethically or practically test if nitrogen gas is a humane alternative," J.A. 158, and that "there's no way to tell if nitrogen gas would not be cruel." J.A. 159.

Bucklew argues that Dr. Antognini testified that lethal nitrogen would take 20 to 30 seconds to render Bucklew insensate to pain. Br. 16. On the contrary, Dr. Antognini testified that how quickly someone would become unable to feel pain would "depend[] on how quickly the [nitrogen] gas is introduced." J.A. 460. He stated that someone might "quickly achieve hypoxia and . . . be unconscious very quickly," or that "it could be introduced very slowly and cause a lot of suffering." J.A. 460. "So depending on—on how it's used, you might get more suffering from nitrogen gas than you would have [from] Pentobarbital. Or you might get less suffering." J.A. 460–61. Because he did not "know how quickly a gas is introduced" in a nitrogen execution, J.A. 460, he stated that any opinion he could offer would be speculative and "not . . . as well founded." J.A. 461.

The Eighth Circuit dissent relied on Dr. Antognini's statement "that a person who is

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to rely on assertions that were "not competent medical evidence." J.A. 846. The district court rejected entirely Bucklew's reliance on a report that discussed high-altitude pilots (printed at J.A. 738–49) because the report was labeled "Preliminary Draft," carried the instruction "Do Not Cite," and failed to establish the author's medical qualifications. J.A. 831 n.9.

administered nitrogen gas 'would be unconscious very quickly,' and that the onset of action from lethal gas 'is going to be relatively fast, *just like Pentobarbital's onset.*'" J.A. 877 (quoting J.A. 458, 460) (emphasis added by the dissent). But Dr. Antognini's subsequent testimony clarified that any conclusions about nitrogen would depend heavily on the concentration and timing of nitrogen's release, about which he had no information. J.A. 459–60. He testified that, under certain protocols, nitrogen "could . . . cause a lot of suffering," and "you might get more suffering from nitrogen gas than you would have Pentobarbital." J.A. 460. By overlooking the immediate context of Dr. Antognini's testimony, the dissenting opinion failed to consider "the record taken as a whole." *Matsushita Elec. Indus. Co.* v. *Zenith Radio Corp.*, 475 U.S. 574, 587 (1986)).

3. The State did not "concede" that nitrogen hypoxia is a feasible and readily available method.

Bucklew repeatedly asserts that, in the district court, the State "did not dispute that lethal gas was a feasible and readily available alternative method when moving for summary judgment," and he claims even that the State "conceded" this point. Br. 51–52 (citing J.A. 827); *see also* Br. 4, 7, 52. This assertion is incorrect.

The State's motion for summary judgment argued that "[t]he record refutes Bucklew's allegation that execution by gas is an alternative execution procedure that is feasibly and readily implemented." D.Ct. Doc. 182, at 8; *see also id.* at 8–9 (discussing specific evidence to support this contention). The State's Statement of

Uncontroverted Material Facts likewise stated that "[t]here is no way to determine that execution by gas is a feasible and readily implemented alternative method of execution," citing similar evidence. *Id.* at vi.

Though Bucklew now contends that State never made these arguments, his response brief in the district court admitted that the State contested this issue. His response brief stated that "Defendants now argue that the use of nitrogen hypoxia . . . is not a viable alternative," and that "there is a genuine issue of material fact as to whether lethal gas, including nitrogen hypoxia, is an available and feasible alternative method of execution." D.Ct. Doc. 199, at 20. In fact, he dedicated an entire section of his district-court brief to these disputed questions. *Id.* at 20–23.

In return, the State's summary-judgment reply brief argued that "Defendants do not agree that Missouri is capable of carrying out executions by lethal gas, and testimony in fact[] indicates that . . . research 'hit a wall' due to lack of necessary research articles and lack of expert opinions on the matter." D.Ct. Doc. 200, at xxii; *accord id.* at 7.

To be sure, the district court stated that "Defendants do not argue that this method of execution is not feasible or readily implemented," J.A. 827—a statement that the Eighth Circuit simply repeated without further comment. J.A. 866 ("Defendants do not argue that this is not a feasible and available alternative."). But the district court's statement, if construed as Bucklew urges, would be plainly erroneous, because the State repeatedly disputed this issue in its summary-judgment briefing. Instead, the district court was probably

referring (imprecisely) to the fact that the State did not dispute that lethal gas is *legally authorized* in Missouri under Mo. Rev. Stat. § 546.720. *See* D.Ct. Doc. 199, at 20; D.Ct. Doc. 200, at xxii. Statutory authorization alone, however, does not render a method "feasible and readily available." *See, e.g.*, *Baze*, 553 U.S. at 66 (Alito, J., concurring) (stating that a legally authorized method would not be "feasible" or "readily available" if it required the participation of physicians who were unavailable).

Moreover, even if Missouri had never raised this argument below, the State "may, of course, defend the judgment below on any ground which the law and the record permit." *Smith* v. *Phillips*, 455 U.S. 209, 215 n.6 (1982).

B. Bucklew failed to provide evidence showing that he is "sure or very likely" to suffer "severe pain" during lethal injection.

Bucklew also failed to provide evidence creating a genuine issue for trial on the first *Glossip* element—that he is "sure or very likely" to experience "severe pain" under the State's chosen method. *Glossip*, 135 S. Ct. at 2737.

1. Pentobarbital will render Bucklew insensate to pain within 20 to 30 seconds, and probably sooner.

Bucklew will not suffer "severe pain" or "serious harm" during lethal injection, because pentobarbital will render him deeply unconscious and insensate to pain within 20 to 30 seconds, and probably sooner.

Even assuming that Bucklew will experience a blocked airway during his execution, Dr. Zivot

provided no estimate of how long it would take Bucklew to become *insensate to pain* under the administration of pentobarbital. Rather, Dr. Zivot's time estimate addressed how long pentobarbital would take to cause Bucklew's brain to stop producing detectable brain waves—an "isoelectric EEG," colloquially called "brain death." J.A. 196. Dr. Zivot testified that an isoelectric EEG would occur at some unknown time between 52 and 240 seconds after pentobarbital administration. J.A. 196. But this estimate does not establish how long pentobarbital would take to render Bucklew unable to feel pain, because that point occurs substantially *before* an isoelectric EEG. An electroencephalogram (EEG) measures detectable brain waves on an index scale from 100 to 0. Jay W. Johansen, et al., *Development and Clinical Application of Electroencephalographic Bispectrum Monitoring*, 93 ANESTHESIOLOGY 1336, 1336 (2000). A reading of 100 refers to a person who is fully conscious. *Id.* An isoelectric EEG occurs when the EEG level drops to zero. *Id.* at 1336; J.A. 402.

People lose the ability to react to pain at EEG levels between 65 and 40, so patients are anesthetized to those levels when undergoing surgery. *Id.* fig. 1; *accord* Medical Advisory Secretariat (Canada), *Bispectral Index Monitoring: An Evidence-Based Analysis*, 4(9) ONTARIO HEALTH TECH. ASSESS. 15 fig. 2, 59 (2004)[8] ("[An index] value should be kept between 40 and 60 for patients undergoing general anesthesia.").

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[8] https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3387745/pdf/ohtas-04-70.pdf.

To be sure, the district court stated that Dr. Zivot "addressed this issue in his deposition, explaining that the study's use of the term 'brain death' was a 'misnomer,' because the study marked 'brain death' before measurable brain activity terminated," and that Dr. Zivot "indicated that pain might be felt until measurable brain activity ceases." J.A. 822 & n.5 (quoting J.A. 196). But these statements misconstrued Dr. Zivot's testimony. Dr. Zivot did call "brain death" a "misnomer," but he testified that the study on which he relied identified "brain death" as "electrical silence on the parts of the brain that an electroencephalogram has access to"—in other words, "isoelectric EEG." J.A. 196. Thus, both Dr. Zivot and the study on which he relied explicitly addressed the point at which "measurable brain activity ceases." J.A. 822.

The district court's latter statement—that Dr. Zivot testified that "pain might be felt until measurable brain activity ceases," J.A. 822—lacks support in the record. Dr. Zivot never stated that, and if he had, it would have been plainly incorrect. General anesthesia renders persons insensate to pain without causing measurable brain activity to cease. In fact, when Dr. Zivot was asked, "Is there a point where [a horse receiving pentobarbital] wouldn't be able to feel or recognize pain *before* that complete cessation [of detectable brain activity]," he replied, "I have no way of knowing." J.A. 196 (emphasis added).

Moreover, Dr. Zivot's sole basis for this 52-to-240-seconds estimate was "a study on euthanizing horses, from 2015." J.A. 195. From this study, Dr. Zivot concluded that it could take "as long as about

two hundred and forty seconds before they see isoelectric EEG" from pentobarbital. J.A. 196.

But Dr. Zivot plainly misconstrued that study. The study reported that "[i]n the group of 9 horses, loss of EEG activity occurred from *2 to 52 seconds* (mean 23.7, SD 21.3, median 18 seconds)" after pentobarbital infusion. J.A. 267 (emphasis added). In other words, this study reported that isoelectric EEG in horses occurred, on average, after 23.7 seconds—directly supporting *Dr. Antognini's* estimate of 20 to 30 seconds to achieve deep unconsciousness from pentobarbital. The figure of 240 seconds that Dr. Zivot reported as the upper range of time for *pentobarbital*, J.A. 196, was drawn from a different portion of the study that addressed (ironically) *lethal gas* in dogs, not horses: "A study by Chalifoux and Dallaire demonstrated that EEG was lost 4 minutes after euthanasia with *carbon monoxide in dogs*." J.A. 272 (emphasis added).

Thus, Dr. Zivot's estimate that pentobarbital would take 52 to 240 seconds to achieve isoelectric EEG "blatantly contradicted" the study from which it was drawn, "so that no reasonable jury could believe it." *Scott* v. *Harris*, 550 U.S. 372, 380 (2007). "[A] court should not adopt that version of the facts for purposes of ruling on a motion for summary judgment." *Id.*

Dr. Zivot also provided no evidence estimating the starting time or ending time of the so-called "twilight stage." J.A. 192–94, 233–34. Dr. Zivot testified that Bucklew would experience "decreased brain activity" that prevents breathing "at some point," but he did not know when: "how long that will be, I cannot say, but at some point that will happen." J.A. 192. He testified that, at some unspecified time

"before then," Bucklew might experience a twilight stage: "And there will be points *before then* where . . . there will still be the experience capable of knowing that he cannot make the adjustment [to clear his airway], and will experience it as choking." *Id.* (emphasis added). And again, when asked whether horses receiving pentobarbital became insensate to pain at some point before they achieved isoelectric EEG, he replied, "I have no way of knowing." J.A. 196.

By contrast, Dr. Antognini testified that pentobarbital would render Bucklew deeply unconscious and oblivious to pain within 20 to 30 seconds of administration, if not sooner. J.A. 299–301, 302–304, 322, 325, 429, 432–33. This conclusion rests on "overwhelming evidence," J.A. 325, drawn from biological understanding of the drug's action, scientific studies, and witness accounts of executions. Medical experience also demonstrates the effectiveness of pentobarbital: "[Y]ou can actually do surgery with Pentobarbital," and "patients do not report pain and suffering." J.A. 430.

Moreover, Dr. Antognini testified that Bucklew will likely become insensate to pain "more quickly" than 20 to 30 seconds, for two reasons. First, the estimate is based on ordinary doses of barbiturates administered for anesthesia, while Missouri's protocol calls for an "overwhelming" dose, "a massive dose of the drug" with "overwhelming effect." J.A. 447, 456. When "the Pentobarbital is being given in a very large dose," then "you're going to achieve that endpoint [of unconsciousness] more quickly." J.A. 430–31.

Second, Dr. Antognini's 20-to-30-second estimate describes the point at which pentobarbital achieves a

"deep coma" at the "far end of the spectrum" of unconsciousness, and causing the inmate to become "basically brain dead." J.A. 402. As discussed above, the inmate loses sensitivity to pain *before* entering this state of "deep unconsciousness and coma." J.A. 430. Indeed, Dr. Antognini testified that Bucklew would most likely lose his ability to feel any "choking sensation" within "ten seconds" of pentobarbital's administration. J.A. 471. "It's not going to be in addition to the 20 to 30 seconds. It's . . . a ten second window within that 20 to 30 seconds." *Id.*

Thus, Bucklew provided no competent evidence to show how long pentobarbital would take to render him insensate to pain. The only competent evidence in the record is Dr. Antognini's conservative estimate that pentobarbital will render him insensate to pain within 20 to 30 seconds—and, more likely, within ten seconds. This short interval does not constitute "serious harm" under the Eighth Amendment, and it provides no basis to infer that state officials intend to inflict "pain for the sake of pain." *Baze*, 553 U.S. at 48, 50.

2. Bucklew forecasts only accidents and isolated mishaps that would not violate the Eighth Amendment.

Bucklew argues that failed attempts to access his veins and other possible unintended mishaps create a risk that he will suffer during his execution. Br. 9–13. But failed attempts to access veins are quintessential examples of "accidents" and "isolated mishaps," which do not violate the Eighth Amendment. *Baze*, 553 U.S. at 50.

"Simply because an execution method may result in pain, either by accident or as an inescapable

consequence of death, does not establish the sort of 'objectively intolerable risk of harm' that qualifies as cruel and unusual." *Id.* (quoting *Farmer*, 511 U.S. at 846). "In other words, an isolated mishap alone does not give rise to an Eighth Amendment violation, precisely because such an event, while regrettable, does not suggest cruelty, or that the procedure at issue gives rise to a 'substantial risk of serious harm.'" *Id.* (quoting *Farmer*, 511 U.S. at 842).

Bucklew repeatedly insists that the Eighth Circuit erred by "assuming" that the execution will go as "intended," Br. i, 23, 25, 28, 29. But this Court has held that, absent evidence to the contrary, courts "must and do *assume* that the state officials carr[y] out their duties under the death warrant in a careful and humane manner." *State of La. ex rel. Francis* v. *Resweber*, 329 U.S. 459, 462 (1947) (plurality opinion) (emphasis added). Thus, "the mere fact that a method of execution might have some *unintended* side effects does not amount to an Eighth Amendment violation." *Glossip*, 135 S. Ct. at 2740 n.3 (emphasis added). This presumption accords with many cases holding that state officials are presumed to act in good faith. *See, e.g.*, *Abbott* v. *Perez*, 138 S. Ct. 2305, 2324 (2018); *Alden* v. *Maine*, 527 U.S. 706, 755 (1999).

When a State's execution protocols involve substantial safeguards, one cannot conclude that an isolated mishap is "cruel and unusual." In *Baze*, the petitioners identified a long series of possibilities for human error in the administration of sodium thiopental, including (among many others) "inadequate facilities and training." *Baze*, 553 U.S. at 54. But this Court held that "asserted problems related to the IV lines do not establish a sufficiently

substantial risk of harm to meet the requirements of the Eighth Amendment," because "Kentucky has put in place several important safeguards" to address those issues. *Id.* at 55.

Missouri's protocol provides even greater safeguards than Kentucky's protocol. Missouri's protocol states the execution team includes both "a physician" and "a nurse." J.A. 213. Bucklew is aware that the team includes "an anesthesiologist" and "a nurse." J.A. 336, 380; *see also Zink* v. *Lombardi*, No. 2:12-CV-4209-NKL, 2013 WL 11762153, at *1 (W.D. Mo. June 18, 2013) ("M3 is a board-certified anesthesiologist licensed to practice medicine in Missouri"). The protocol directs the anesthesiologist and nurse to insert an IV in the "most appropriate" place to obtain access. J.A. 214. Both nurses and anesthesiologists are trained to obtain peripheral access, and "[e]very board-certified anesthesiologist is trained" to access central veins. J.A. 463. Moreover, at least one central vein—the femoral vein—is "easily accessed." J.A. 350. The medical team receives Bucklew's complete medical records—not just the summary touted by Bucklew. J.A. 627.[9] And the protocol provides for other protections similar to Kentucky's protocol, such as "redundant measures" to ensure that an adequate dose of pentobarbital is promptly administered. *Baze*, 553 U.S. at 55; J.A. 214.

Missouri's provision of numerous safeguards confirms that any individual problems—such as

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[9] The Director of the Division of Adult Institutions testified that he provides the execution team with a summary. J.A. 528. But the Warden of the facility conducting the execution testified without contradiction that the execution team also "receive[s] his medical records." J.A. 627.

difficulty accessing Bucklew's veins—would constitute "isolated mishaps" that do not violate the Eighth Amendment. *Baze*, 553 U.S. at 50.

3. Missouri has legitimate penological justifications to use pentobarbital.

To prove that the State's preferred method is "cruel and unusual," the inmate must also demonstrate that the State is adhering to it "without a legitimate penological justification." *Baze*, 553 U.S. at 52. "If a State refuses to adopt [the inmate's proposed] alternative in the face of . . . documented advantages, *without a legitimate penological justification* for adhering to its current method of execution, then a State's refusal to change its method can be viewed as 'cruel and unusual' under the Eighth Amendment." *Id.* (emphasis added).

Missouri has several legitimate penological justifications for its preferred method. First, the State has a strong interest in not switching to a novel method before it is thoroughly tested. Nitrogen hypoxia may turn out to be a valid and effective method of execution, as other States are exploring the option, but the Constitution does not require Missouri to adopt it when it is still untested. Missouri's method is considered "the most humane and effective method of execution possible." J.A. 705. Oklahoma law still provides that nitrogen hypoxia can be used only if lethal injection is unavailable or found unconstitutional. Okla. Stat. tit. 22, § 1014. Two-thirds of the States authorize capital punishment, and every one of those states authorizes lethal injection. D.Ct. Doc. 192-17, at 5–8. Missouri has used its single-drug method 20 times since adopting it, and every procedure has been successful.

D.Ct. Doc. 182-1, at 219; J.A. 526. No State has ever executed anyone by nitrogen hypoxia, and as of this writing, no State has yet developed a protocol to do so. Without "an alternative [that] is feasible and readily implemented," Missouri "has a legitimate penological justification for adhering to its current method of execution in order to carry out lawful sentences." *McGehee*, 854 F.3d at 493.

Similarly, Missouri "has an interest in preserving the dignity of the procedure." *Baze*, 553 U.S. at 57. The State may legitimately avoid a method that causes symptoms that "could be misperceived as signs of consciousness or distress." *Id.* For example, nitrogen hypoxia in some animals is known to induce "seizure-like behavior." Leary, *supra*, at 23. Because nitrogen hypoxia is untested, Missouri does not know whether it may cause such symptoms that undermine the dignity of the procedure, as earlier methods of lethal gas sometimes did. *See, e.g.*, *Gomez* v. *U.S. Dist. Court for N. Dist. of California*, 503 U.S. 653, 655 (1992) (Stevens, J., dissenting); *Gray* v. *Lucas*, 463 U.S. 1237, 1241 (1983) (Marshall, J., dissenting from denial of certiorari).

Moreover, Missouri may avoid adopting a procedure before knowing whether it will provoke public discomfort or outrage. When the New York legislature first convened a commission in the nineteenth century to recommend a better method, that commission rejected the guillotine in part because its use in the French Revolution's Reign of Terror made it "totally repugnant to American ideas." Stuart Banner, *The Death Penalty: An American History* 180 (2002). When States first adopted lethal gas, many people reacted negatively

because it reminded them of gases used by Germany in World War I. *Id.* at 199. Since then, Nazi Germany used lethal gases to perpetrate some of the greatest crimes in the history of humanity. *See* Tr. Oral Arg. at 18:5–6, *Glossip*, 135 S. Ct. 2726 (Sotomayor, J.) ("[P]eople probably don't want to use [gas] because of what happened during World War II."). Because it is untested and may have powerful historical associations, Missouri does not yet know what the public reaction to lethal gas might be.

II. An Inmate Raising an As-Applied Challenge Must Prove an Alternative, Feasible, Readily Available Method of Execution.

Contrary to Bucklew's contention, *Baze* and *Glossip* require an inmate raising an as-applied challenge to plead and prove an alternative, readily feasible method of execution.

A. The alternative-method requirement is a "substantive element" of all method-of-execution claims.

First, though it addressed a facial challenge, *Glossip* announced that proving an alternative method is "a requirement of *all* Eighth Amendment method-of-execution claims." *Glossip*, 135 S. Ct. at 2731 (emphasis added). *Baze* and *Glossip* drew no distinction between facial and as-applied claims: "The controlling opinion in *Baze* outlined what a prisoner must establish to succeed on an Eighth Amendment method-of-execution claim." *Id.* at 2737.

Baze and *Glossip* "made clear that the Eighth Amendment requires a prisoner to plead and prove a known and available alternative." *Glossip*, 135 S. Ct. at 2739. The alternative-method requirement is not

a procedural rule or equitable requirement, but "a substantive element[] of an Eighth Amendment method-of-execution claim." *Id.* Whether raising a facial or as-applied challenge, an inmate must prove every "substantive element" of his claim. *Id.* For this reason, the lower courts have concluded that this requirement holds for as-applied challenges. *See Bucklew*, 783 F.3d at 1128; *Arthur* v. *Comm'r, Alabama Dep't of Corr.*, 840 F.3d 1268, 1305 (11th Cir. 2016), *cert. denied sub nom. Arthur* v. *Dunn*, 137 S. Ct. 725 (2017); *Gissendaner* v. *Comm'r, Ga. Dep't of Corr.*, 779 F.3d 1275, 1283 (11th Cir. 2015) (per curiam).

Baze and *Glossip* "beg[a]n with the principle, settled by *Gregg*, that capital punishment is constitutional. It necessarily follows that there must be a means of carrying it out." *Baze*, 553 U.S. at 47 (citations omitted); *see also Glossip*, 135 S. Ct. at 2732–33. Contrary to Bucklew's argument, this principle is equally valid for as-applied challenges. Because capital punishment is constitutional, there must be a means of executing an individual prisoner lawfully sentenced to death. An inmate who prevailed on an as-applied challenge without identifying an alternative means of execution would obtain an effective exemption from capital punishment.

B. When no alternative method is feasible and available, the State is not inflicting "pain for the sake of pain."

Bucklew contends that the alternative-method requirement addresses only "the difficulty of evaluating whether a given method of execution inherently presents a substantial and unjustified

risk of severe pain." Br. 39. This argument overlooks long-settled Eighth Amendment doctrine. The Eighth Amendment requires a showing of subjective culpability by state actors. Absent an alternative method, one simply cannot infer that state officials were subjectively culpable in adopting the method they chose. Whether the claim is facial or as-applied, if no feasible alternative is available, one cannot conclude that the State is imposing "pain for the sake of pain." *Baze*, 553 U.S. at 48.

It is well settled that this Court's "cases mandate inquiry into a prison official's state of mind." *Wilson* v. *Seiter*, 501 U.S. 294, 297 (1991). "To violate the Cruel and Unusual Punishments Clause, a prison official must have a sufficiently culpable state of mind." *Farmer*, 511 U.S. at 834.

Baze and *Glossip* did not create an exception to this longstanding principle. Rather, they explicitly reaffirmed it. *Baze* held that a method-of-execution claim requires showing "'an objectively intolerable risk of harm' *that officials may not ignore*." *Baze*, 553 U.S. at 50 (quoting *Farmer*, 511 U.S. at 846 & n.9) (emphasis added). And *Baze* stated that "'an accident,' *with no suggestion of malevolence*, did not give rise to an Eighth Amendment violation." *Id.* (quoting *Resweber*, 329 U.S. at 463) (emphasis added). Likewise, both cases held that "there must be 'a substantial risk of serious harm,' an objectively intolerable risk of harm that prevents prison officials from pleading that they were *subjectively blameless* for purposes of the Eighth Amendment." *Glossip*, 135 S. Ct. at 2737 (quoting *Baze*, 553 U.S. at 50) (quotation marks omitted) (emphasis added).

The alternative-method element is indispensable to proving that state officials are not "subjectively

blameless." *Id.* During executions, what the Eighth Amendment forbids is not the infliction of pain—which is a risk in virtually all executions—but "the *deliberate* infliction of pain *for the sake of pain*." *Baze*, 553 U.S. at 48 (emphases added). "Some risk of pain is inherent in any method of execution—no matter how humane—if only from the prospect of error in following the required procedure." *Id.* at 47.

To determine what pain is prohibited by the Eighth Amendment, *Baze* recounted that, in *Wilkerson*, the Court "cited cases from England in which 'terror, pain, disgrace were sometimes superadded to the sentence, such as where the condemned was 'emboweled alive, beheaded, and quartered,' or instances of 'public dissection in murder, and burning alive.'" *Baze*, 553 U.S. at 48 (quoting *Wilkerson* v. *Utah*, 99 U.S. 130, 135–36 (1879)). *Baze* also quoted *Kimmler*'s statements that "[p]unishments are cruel when they involve torture or a lingering death," and that the word "cruel" in the Eighth Amendment "implies there something inhuman and barbarous." *Baze*, 553 U.S. at 49 (quoting *In re Kimmler*, 136 U.S. 436, 447 (1890)). *Baze* concluded that "[w]hat each of the forbidden punishments had in common was the deliberate infliction of pain for the sake of pain." *Baze*, 553 U.S. at 48; *see also Glossip*, 135 S. Ct. at 2732.

Thus, the alternative-method requirement is essential to proving that the choice of procedure arose from "malevolence," *id.* at 50—*i.e.*, "the deliberate infliction of pain for the sake of pain." *Id.* at 48. Without any available, substantially less painful alternative, one simply cannot infer that the State has chosen its method to inflict "pain for the sake of pain." *Id.* Similarly, one cannot infer that

state officials are deliberately indifferent to suffering when they lack a readily feasible alternative method. Unless state officials were to "superadd[] pain to the death sentence, through torture and the like," *id.*, they are not acting malevolently when they select the only readily available method.

In sum, "whether [official conduct] can be characterized as 'wanton' depends upon the constraints facing the *official*." *Wilson*, 501 U.S. at 303 (emphasis in original). The absence of an alternative method is a "constraint[] facing the official." *Id.* Without an alternative method of execution, state officials lack any "subjectively culpable state of mind" in selecting the option available, *Farmer*, 511 U.S. at 846 n.9, and they are not inflicting "pain for the sake of pain." *Baze*, 553 U.S. at 48.

C. Eliminating the alternative-method requirement would encourage meritless claims and delay many executions.

Abolishing the alternative-method element for as-applied challenges would encourage meritless claims that could impose additional years of delay before many executions. If as-applied challenges become far easier to plead and prove, many inmates will undoubtedly assert them, potentially delaying many executions.

Because of procedural requirements in capital cases, the delay between issuing a lawful capital sentence and carrying out that sentence has increased drastically. In the 1930s, the delay in Texas was six weeks; in the 1950s, five months. Banner, *supra*, at 216. Now, the average delay is 18 years, and it has been predicted to grow to more than

37 years. *Glossip*, 135 S. Ct. at 2764–65 (Breyer, J., dissenting). In the light of these delays, many inmates will allege that they have developed *some* medical condition before the State can carry out a lawful sentence.

Nor will inmates feel constrained to sue about their medical conditions only once. Just as Bucklew has done, those inmates will assert that their medical conditions keep changing and growing worse. Like Bucklew, they will assert that those changes create brand new claims that evade statutes of limitations and preclusion doctrines. Each new case could impose additional years of delay before execution.

This case provides a prime example of the potential for even meritless as-applied challenges to impose long delays. As discussed above, Bucklew's challenge to Missouri's single-drug protocol was facially implausible from the outset, because overwhelming evidence shows that pentobarbital will swiftly render him deeply unconscious and insensate to pain. His expert's testimony on critical issues lacks credibility and contradicts the record.[10] Yet Bucklew has used this implausible claim, propped up by non-credible testimony, to obtain two stays of execution and delay his sentence for over four years.

Missouri has already been forced to defend as-applied challenges to methods of execution in recent years. *See, e.g.*, *Clayton* v. *Lombardi*, No. 4:15-CV-470-AGF, 2015 WL 1222399, at *7–8 (E.D. Mo. Mar.

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[10] As the Eighth Circuit dissent noted, "[t]here certainly are grounds to attack the reliability and credibility of Dr. Zivot's opinion," including "the imprecision of some of his testimony," "his opposition to all forms of lethal injection," and "his inaccurate predictions of calamities at prior executions." J.A. 876.

17, 2015); ECF No. 51, *Johnson* v. *Lombardi*, No. 2:15-CV-4237-DGK (W.D. Mo. May 1, 2017). Other States have faced similar challenges. If the Court were to adopt Bucklew's position, the States would face an explosion of these claims in the future.

III. The District Court Did Not Abuse Its Considerable Discretion When It Denied Bucklew's Discovery Request.

Federal appellate courts "review a district court's discovery rulings narrowly and with great deference and will reverse only for a 'gross abuse of discretion resulting in fundamental unfairness.'" J.A. 870 (quoting *Marksmeier* v. *Davie*, 622 F.3d 896, 903 (8th Cir. 2010)). "That standard of review reflects the district court's superior familiarity with, and understanding of, the dispute; and it comports with the way appellate courts review related matters of case management, discovery, and trial practice." *United States* v. *Clarke*, 134 S. Ct. 2361, 2368 (2014). Discovery rulings should be reversed only "under very unusual circumstances." Wright & Miller, 8 FED. PRAC. & PROC. CIV. § 2006 (3d ed., April 2018 supp.). No such abuse of discretion occurred here.

A. Isolated mishaps, such as failed attempts to access veins, do not violate the Eighth Amendment.

Bucklew argues that the district court erred by failing to grant him discovery into "the training and qualifications of the medical personnel on the execution team," M2 and M3. Br. 30. But the information requested was relevant only to show that failures to access Bucklew's veins or other mishaps might occur during the execution. For the

reasons stated above, *supra* Part I.B.2, any such "isolated mishap" would not violate the Eighth Amendment. *Baze*, 553 U.S. at 50.

In rejecting Bucklew's request for more discovery, the Eighth Circuit held that the "evaluation must be based on the as-applied pre-execution protocol, assuming that those responsible for carrying out the sentence are competent and qualified to do so." J.A. 871. This holding faithfully followed *Baze* and *Glossip*, which held that accidents and isolated mishaps do not violate the Eighth Amendment. Because the discovery sought was irrelevant as a matter of law, the district court did not abuse its discretion in denying it.

B. The district court had dismissed the only count to which the execution team's training was relevant.

The discovery sought was also irrelevant because the district court had already dismissed the only count to which it pertained. As the district court noted, in Count I of the complaint—the sole count to survive the State's motion to dismiss—"Plaintiff does not contend that using different chemicals, or administering chemicals in a different way, will diminish the risk of pain and suffering." J.A. 662. Rather, "[a]ccording to Count I, the only way to significantly diminish the pain and suffering resulting from lethal injection is to execute Plaintiff with lethal gas." *Id.* "Count I also does not allege that more or different training will decrease these risks." *Id.* Bucklew repeatedly alleged that "[a]ny attempt to execute Mr. Bucklew under Missouri's present protocol, or by *any* means of lethal injection,"

would lead to excruciating pain. J.A. 43 (emphasis in original); *see also* J.A. 49, 52, 72, 77, 84.

By contrast, Bucklew alleged in *Count II* that various changes to the execution procedure—such as the composition of the execution team—might reduce his suffering. "Count II alleged that Plaintiff 'will experience pain and suffering unless certain changes are made in the lethal injection protocol.'" J.A. 662 (quoting D.Ct. Doc. 63, at 14). Count II alleged that medical personnel would fail to take "reasonable and necessary steps to assess and address the risks Bucklew faces." J.A. 113.

By the time of the discovery dispute, the district court had "dismissed Count II because the Fourth Amended Complaint did not 'allege sufficient facts to indicate that the staffing and planning procedures Defendants intend to utilize will create a substantial risk of serious harm' and 'does not allege what procedures should be employed (other than not performing an execution).'" J.A. 662 (quoting D.Ct. Doc. 63, at 14–15.). Bucklew never appealed from the dismissal of Count II of the Fourth Amended Complaint, so that decision became a final judgment on the merits as to those allegations. Fed. R. Civ. P. 41(b). Bucklew cannot relitigate that claim now.

Bucklew insists that the execution team's training and qualifications were relevant to prove his theory that they will bungle their attempts to access his veins. Br. 10–13, 33. But the Fourth Amendment Complaint never made any allegation that his suffering would be caused or aggravated by difficulties in accessing his veins. *See* J.A. 42–94. The only allegation regarding his "weak, malformed veins" stated that there was a risk that his veins would rupture if they received too much fluid, not

that medical personnel would have trouble accessing the veins. J.A. 62. And the district court rejected this argument, noting that "the Record establishes that . . . the use of Plaintiff's femoral vein does not present any risk of serious illness or needless suffering." J.A. 825.

C. Bucklew's request was disproportional to the needs of the case because existing evidence refuted Bucklew's claim.

Bucklew contends that the additional discovery would demonstrate that, due to medical personnel's lack of training, he will suffer "repeated, failed attempts to gain peripheral venous access, that the tumor on his uvula will rupture early in the process," and that his breathing difficulties will compound "during a cutdown procedure." Br. 30; *see also* Br. 9–13, 33. Existing evidence refutes each of the steps in Bucklew's series of alarmist predictions.

First, Bucklew speculates that he will undergo repeated failed attempts to access a peripheral vein. But the execution protocol directs the "[m]edical personnel" to "determine the most appropriate locations for intravenous (IV) lines," and provides that they "may insert the primary IV . . . as a central venous line." J.A. 214. Bucklew's expert agrees that medical personnel typically attempt to "place the needle in the best available vein." J.A. 231. In addition, access to peripheral veins "could be in the foot," which "often" occurs "in a clinical setting." J.A. 337. Bucklew provided no evidence that there was any problem with the peripheral veins in his feet. Thus, there is no factual basis for Bucklew's prediction that he will suffer many failed attempts to access peripheral veins.

Second, the record refutes any suggestion that Bucklew will likely endure failed attempts to access his *central* veins, such as the femoral vein. Bucklew has never provided any evidence that his central veins are difficult to access. J.A. 821. In fact, Bucklew has "concede[d] that there is no evidence in the Record establishing that Plaintiff has any problem with his veins *other* than his peripheral veins, including his femoral vein." J.A. 821 (emphasis in original). In opposing summary judgment, Bucklew "d[id] not present any legal arguments" relating to "the use of his femoral vein." J.A. 825. The anesthesiologist on the execution team is trained to access central veins, J.A. 463, and the femoral vein is "easily accessed," J.A. 350. An inexperienced anesthesiologist was able to access a central vein on the first attempt 90 percent of the time. J.A. 185–86.

Third, the record does not support Bucklew's prediction that he will undergo a cutdown procedure to access a central vein. A cutdown procedure is used only when, after employing "the usual methods," "they can't access it peripherally" and "they can't get a central venous line placed." J.A. 346. Cutdown procedures are usually reserved for trauma patients. *Id.* Access to central veins by "the usual methods," *id.*, is extremely likely to succeed on the first attempt, and multiple attempts are possible if necessary. J.A. 185–86.

Under these circumstances, additional discovery would not have been "proportional to the needs of the case." Fed. R. Civ. P. 26(b)(1). It would have served only to delay proceedings and harass members of the execution team. *See Zink* v. *Lombardi*, 783 F.3d 1089, 1106 (8th Cir. 2015). Bucklew belatedly

suggests that it would be appropriate to proceed by interrogatory or remote deposition to protect the identities of M2 and M3. Br. 33. But, in the proceedings below, Bucklew "never urged the district court to establish a suitable fact-finding procedure—for example, by anonymous interrogatories or written deposition questions to the execution team members." J.A. 869.

D. Any error was harmless because Bucklew failed to prove an alternative method of execution.

Any error in the discovery order was also harmless because the discovery sought pertained only to the first *Glossip* element, but Bucklew failed to meet his burden under the second *Glossip* element, as discussed above. *Supra*, Part I.B.

IV. Bucklew's Claim Is Barred by the Statute of Limitations and *Res Judicata*.

In the courts below, the State argued that Bucklew's complaint was barred by the statute of limitations and *res judicata*. No court has yet ruled on these defenses, and the State may "defend the judgment below on any ground which the law and the record permit." *Phillips*, 455 U.S. at 215 n.6.

First, Bucklew's claim is barred by the statute of limitations. In 2008, Bucklew filed an application for funds stating that he suffered from "a rare and dangerous vascular disorder" that was "characterized by grossly dilated blood vessels prone to uncontrollable bleeding," J.A. 656, and that he would likely suffer "serious harm amounting to cruel and unusual punishment during the administration of Missouri's lethal injection protocol in light of his

affliction with cavernous hemangioma." J.A. 657. He sought "to demonstrate, through expert medical services, that Missouri's method of execution, *as applied uniquely to Mr. Bucklew*, may constitute cruel and unusual punishment." *Id.* (emphasis in original). A supporting expert affidavit opined that Bucklew's "high-flow cavernous hemangiomas" would "cause slowing of the sodium pentothal to reach the circulatory system of the brain." J.A. 658. This same theory became the centerpiece of the Fourth Amended Complaint in this case. J.A. 45, 47, 56, 62, 64–65, 67, 73, 84.

Bucklew chose not to raise this claim until May 2014—six years after his 2008 application, and 12 days before his scheduled execution. The statute of limitations is five years. *See* Mo. Rev. Stat. § 516.120(4) (five-year statute of limitations for "any other injury to the person or rights of another"); *Wilson* v. *Garcia*, 471 U.S. 261, 266–68 (1985) (holding that 42 U.S.C. § 1983 incorporates the most analogous state-law statute of limitations for constitutional torts); J.A. 852.

Bucklew argued below that he "lacked sufficient information to assert this claim until Dr. Zivot examined his medical records in April 2014." J.A. 852. But Dr. Zivot simply repeated what Bucklew's first expert had done. Both doctors reviewed Bucklew's medical records and opined that lethal injection would be unconstitutional in all circumstances because of Bucklew's purported circulatory problems. J.A. 92, 658. Bucklew's first expert asserted that he wanted to conduct additional research and conduct an exam. J.A. 658. But Dr. Zivot did the same. Dr. Zivot did not examine Bucklew until May 12, 2014, *after* Bucklew filed his

initial complaint. D.Ct. Doc. 182-1 at 187–88; J.A. 47, 65.

Second, for similar reasons, Bucklew's claim is barred by *res judicata*. "[A] final judgment on the merits of an action precludes the parties or their privies from relitigating issues that were or could have been raised in that action." *Allen* v. *McCurry*, 449 U.S. 90, 94 (1980). In a previous suit, *Zink* v. *Lombardi*, No. 12-04209-CV-C-BP (W.D. Mo.), Bucklew challenged the facial validity of Missouri's lethal injection protocol. Bucklew could have pleaded his as-applied claim in that suit, but he chose not to. When that suit became final, it barred him from bringing his as-applied claim.

On May 2, 2014, the district court in *Zink* directed Bucklew to amend his facial challenge to lethal injection, but it stated that he could not amend his other counts. *Zink*, 12-04209-CV-C-BP, 2014 WL 11309998, *12 (W.D. Mo. May 2, 2014). The Eighth Circuit dissent opined that this order prohibited Bucklew from pleading his as-applied claim in *Zink* because it restricted what he could raise in the amended pleading. J.A. 880–81. That analysis fails for three reasons.

First, the dissent assumed that Bucklew learned the factual basis for his claim in April 2014, and so he could not have raised that claim in *Zink* before then. J.A. 879–80. But Bucklew learned the factual basis for his claim in 2008, so he could have raised it at any time from the very beginning of the *Zink* litigation. He had many opportunities to do so before May 2014.

Second, a plaintiff cannot avoid *res judicata* simply because of the "mere refusal of the court in the first action to allow an amendment of the

complaint to permit the plaintiff to introduce additional material." RESTATEMENT (SECOND) OF JUDGMENTS § 26 cmt. b (1982). Instead, a plaintiff must request permission from the court to split claims into separate suits, or else to seek leave to amend and then "appeal from an adverse judgment" if the court denies leave. *Id.*

Third, the district court did not issue that order until May 2, a month *after* Bucklew asserts that he first learned the basis for his as-applied claim. J.A. 852. Bucklew's execution was already scheduled for May 21, 2014. Given his imminent execution date, Bucklew could and should have promptly sought leave to add the claim in *Zink*. In fact, he filed this separate suit on the very same day he was supposed to re-plead in *Zink*. He could have asserted his as-applied claim in *Zink*, but he chose to split his claims and initiate another suit instead without seeking leave to split his claims. In doing so, he assumed the risk that *Zink* would reach final judgment first and bar his claims in this lawsuit.

CONCLUSION

This Court should affirm the judgment below.

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IN THE

Supreme Court of the United States

RUSSELL BUCKLEW,

Petitioner,

v.

ANNE PRECYTHE, *et al.*,

Respondent.

On Writ of Certiorari to the United States Court of Appeals for the Eighth Circuit

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INTRODUCTION

The Eighth Amendment commits state officials to take the steps reasonably necessary to avoid predictable cruelty when administering punishment. It does so not only for the benefit of those whom we punish. Just as importantly, it preserves the basic human dignity and decency of society itself. *Coppedge v. United States*, 369 U.S. 438, 449 (1962) ("The methods we employ in the enforcement of our criminal law have aptly been called the measures by which the quality of our civilization may be judged."); *Trop v. Dulles*, 356 U.S. 86, 100 (1958) (plurality opinion) (the "basic concept underlying the Eighth Amendment is nothing less than the dignity of man").

Respondents ask this Court to endorse procedural and substantive rules of law that shirk their responsibilities to avoid needless suffering in carrying out executions. As a matter of procedure, respondents go beyond the Eighth Circuit's erroneous view that courts should assume that an execution of an inmate with a rare medical condition will go as planned. They advocate standards that will conceal, from both courts and the state officials charged with administering humane punishment, the readily available facts that demonstrate an intolerably high and objective risk of suffering. As a matter of substance, they would reward the ignorance of state officials by requiring an inmate to prove state officials' "subjective culpability" in carrying out an execution. Resp. 45; *id.* 39 (arguing that any unplanned event in an execution with "safeguards" cannot be cruel because such events are not intended or the result of bad faith); *id.* 46 (arguing that the Constitution prohibits only the infliction of pain for pain's sake).

This is a recipe for all-too-frequent catastrophe. It encourages state officials to remain ignorant of the particular risks an inmate's medical condition presents and then rely on the fact that they would be "surprised" by any (in fact predictable and even likely) "mishap" as reason to allow the execution to proceed. This Court should not endorse such indifference to grave risks and cripple the capacity of inmates to demand that state officials do anything about them. Under respondents' view, botched executions, while not certain, will not be surprising either. Our Constitution demands more.

Respondents would also shirk their responsibilities when it comes to designing an alternative method of execution. They offer no reason to place the burden on an inmate raising an as-applied challenge to his method of execution. And they ask this Court not only to impose the requirement on such inmates, but also to construe it to require the inmate to propose a protocol at a level of detail that exceeds Missouri's own protocol. Inmates cannot and should not be required to bear such a heavy burden.

Once again, the result of respondents' view would be predictably cruel executions. As respondents would have it, state officials can *know* that an inmate's medical condition means that executing him by the state's generally applicable method would produce excruciating pain, yet those same officials nonetheless will not be deemed to *intend* that suffering unless the inmate proves a readily available (highly detailed) alternative. Resp. 44–47. In respondents' hands, the alternative method requirement amounts to cruelty-laundering. Our Constitution demands more.

If this Court chooses to extend the alternative method requirement to as-applied challengers, then it

should conclude that petitioner has produced enough evidence to warrant a trial. Respondents have repeatedly failed to seek summary judgment on the ground that lethal gas is not readily available, and this Court should not rule on that basis now. In any event, lethal gas is readily available to respondents. The fact that they have chosen not to undertake serious efforts to design a protocol for it does not make it any less readily available to them. And the record reasonably supports the conclusion that lethal gas would pose substantially fewer risks to someone with petitioner's condition than would lethal injection.

I. COURTS SHOULD NOT ASSUME BUCKLEW'S EXECUTION WILL GO AS PLANNED.

The Eighth Circuit assumed a lethal injection execution of Bucklew would go as planned, and so refused to allow discovery into M2's and M3's knowledge, experience, and ability to respond to the predictable and serious risks Bucklew faces. J.A. 871. Respondents defend that legal standard by defining any unintended event in an execution as the kind of "isolated mishap[]" that does not implicate the Eighth Amendment. Resp. 38. That is not and should not be the law.

It makes no sense to assume all will go as planned when considering an as-applied challenge based on an inmate's rare medical condition. Bucklew's challenge is not that Missouri's protocol cannot work humanely for *anyone*, and it is not that the protocol lacks safeguards that reduce risks to healthy inmates. Resp. 39–40. Bucklew argues that what we know about his medical condition and what we know from Missouri's execution protocol combine to raise a constitutionally intolerable risk of needless suffering *for him* that respondents must address. Br. 27–28.

Respondents never confront that argument. They offer no reason to follow their implicit suggestion to treat Bucklew's as-applied challenge the same as a facial challenge: simply evaluate Missouri's "safeguards" in a vacuum and declare them "adequate."

Respondents' approach would endorse studied indifference to readily knowable risks of executing an inmate with a rare medical condition. Br. 28–30. Respondents point out that Bucklew has not pursued the "deliberate indifference" count in his complaint. Resp. 51. But that is irrelevant. The claim he has pursued asserts that respondents cannot disregard the knowable and known risks his condition presents.

1. *Respondents unreasonably disregard the risks to Bucklew.* — Respondents confirm that their position depends on an unrealistic view of the risks Bucklew faces when they describe the record concerning those risks. For example, respondents claim that the medical professionals on the execution team "'receive the inmate's medical records' before the execution, not just a one-page summary of his health condition." Resp. 6 (alterations and citation omitted). Put aside that this stray comment, even if true, says nothing about how much time medical team members would have to review Bucklew's voluminous records; the comment provides no reason to believe M2 and M3 can meaningfully process the records before carrying out the execution. J.A. 627. More fundamentally, there is no reason to believe the statement is true. Respondents quote an official who did not know "what information is shared between the [medical] staff and the execution team members." J.A. 622. By contrast, the official who actually "meet[s] with the execution team members in advance," J.A. 511, testified that he provides the execution team the one-page medical summary and *nothing else*, J.A. 528.

Respondents also pretend there is no evidence that gaining venous access poses serious risks to Bucklew. Resp. 12, 53. Respondents now claim peripheral venous access is likely, even though *both* experts who examined Bucklew's veins acknowledged reasons to doubt successful peripheral access. J.A. 231, 332. Respondents assert, based on generic testimony about human anatomy and not any evidence regarding Bucklew, that access through his foot might be possible. J.A. 337. Respondents also note that Bucklew had an IV inserted for medical procedures, including for a recent tracheotomy this past summer. Resp. 12–13. This Court should not mistake this for reason to believe that medical professionals recently gained stable access to Bucklew's vein without incident and substantial delay. Bucklew's medical records from this summer's treatment would show whether that is so. Respondents, who opposed Bucklew's request to lodge a relevant portion of those records, had not reviewed them when they wrote their brief, and believe this Court should not review them either. Wishful thinking is not evidence, and no basis to allow a risky execution to proceed.

Respondents also assert that all anesthesiologists can access central veins, and that even inexperienced anesthesiologists access central veins successfully on the first try 90 percent of the time. Resp. 6, 53.[1] Yet the State's own execution protocol contemplates that medical personnel may *not* have the training or expe-

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[1] There is no evidence that inexperienced anesthesiologists can access a central vein "on the first attempt 90 percent of the time." Resp. 53. Dr. Zivot testified that when he was a trainee, he failed to access a central line approximately 33 percent of the time; as he grew more experienced, his failure rate dropped to approximately 10 percent, but even then a "success" might involve up to ten attempts. J.A. 185–86.

rience to do so. J.A. 214 (authorizing medical personnel to access a central line *if* they "have appropriate training, education, and experience"). Witnesses confirmed that not all medical personnel, or even all anesthesiologists, are qualified and skilled at performing the central line procedure. J.A. 336, 462. Respondents also deny any concern about using the painful and outdated cut-down procedure. Resp. 53. But the particular medical personnel who would be charged with obtaining venous access in Bucklew's execution have resorted to a cut-down in the past. J.A. 615–16. And a medical kit to perform a cut-down is in the execution chamber, presumably in case the execution team decides to do one. J.A. 616–18.

Finally, respondents assert that once the lethal drug is pushed, there is no evidence Bucklew faces a substantial risk of suffering. Respondents write as if their expert's testimony was undisputed. Resp. 37. But not even Dr. Antognini shares respondents' confidence. Even he testified that it could be *longer* than 20 to 30 seconds. J.A. 432. More importantly, Dr. Zivot disagrees with Dr. Antognini's 20 to 30 second estimate. And Dr. Zivot's view is not simply based on a study about horses; he cited that study only to explain why Dr. Antognini's view should be doubted. J.A. 195. When it comes to the basis for his prediction that Bucklew will remain sensate to pain for several minutes, he relied on his decades of experience as an anesthesiologist. J.A. 222. Moreover, respondents ignore substantial evidence from Dr. Zivot that the pain Bucklew will face includes choking and gagging on his own blood, which is likely to begin even before the lethal drugs are pushed. J.A. 226, 232–33.

Respondents also point to "witness accounts of executions," but these, too, undermine respondents' assertion. Many witnesses observed that it took

minutes, and not seconds, for the drug to take effect. J.A. 324–25. There is ample reason to believe Bucklew faces a substantial risk of severe pain and suffering.

Respondents' one-sided presentation of the record underscores why denial of discovery into the skills, training, and abilities of M2 and M3 was so wrongful. Only M2 and M3 can explain how much about an inmate's medical history they know when they begin an execution or whether they know anything about cavernous hemangioma as Bucklew presents it. Only M2 and M3 can explain whether and under what circumstances they will use a cut-down. Only M2 and M3 can explain what they would do during an execution when an inmate began choking on blood leaking from a tumor in his throat. The record makes clear that the risks Bucklew faces of being executed by a poorly informed and unprepared execution team is substantial. Discovery will further illuminate the full extent of those risks.

While respondents wrongly assert that "additional discovery" regarding M2 and M3 was unjustified, they never even try to explain why Bucklew could not use discovery of M2 and M3 from prior cases. Bucklew's appointed counsel, who has seen that evidence, has made clear that she believes it is germane to the issues here. Barring use of that testimony in this case is indefensible.

Finally, the assertion that Bucklew never proposed a suitable fact-finding procedure regarding M2 and M3 that would preserve their anonymity is baseless. APP0224–25 (stating documents needed could be produced "with identifying information redacted").

2. *Respondents' view short-circuits the adversarial process where it is needed most.* — The discovery

Bucklew seeks is critical to ensure that the adversarial process achieves its truth-seeking function. Respondents suggest that Bucklew has been abusing the litigation process by constantly revising his claim. Resp. 9–14. But their view reflects a misunderstanding of the litigation process, Bucklew's claim, and their legal obligations to avoid inflicting cruelty upon him.

The operative complaint identified Bucklew's risk of choking on blood leaking from his tumors during the execution, especially when lying flat. J.A. 43–48, 52, 56–59, 66–67, 69–71, 73–74, 78, 85. It is not surprising, in fact it is routine, for plaintiffs to obtain information through discovery that fills out details not included in the "short and plain statement" of their claims. Fed. R. Civ. P. 8. It is also routine for plaintiffs to obtain information through discovery that results in abandoning theories of liability pled in the complaint. It is likewise routine for plaintiffs and defendants to find ways to resolve disputes with respect to parts of a claim while continuing to litigate others. Respondents suggest that the unfolding of the litigation process here somehow reflects Bucklew shifting his theories of liability. *See generally* Resp. 9–14. That is wrong.

It is also ironic. The occasional (inadequate) effort by respondents to acknowledge Bucklew's concerns has been the result of litigation. Respondents abandoned the use of methylene blue during this litigation. Dkt. 199-1.[2] Respondents' late and inadequate assurance, offered by someone with unclear authority and only in response to Bucklew's Eighth Circuit rehearing petition, that Bucklew will not be required to

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[2] "Dkt." citations refer to entries on the district court's docket, No. 4:14-cv-08000 (W.D. Mo. filed May 9, 2014).

lie "fully supine" during the execution was a product of this litigation. Moreover, Bucklew's condition is progressive. J.A. 229, 647–48; Br. 6. So it is not at all surprising that the risks he faces have changed over time.

This case is about whether the "adversarial process" will be permitted to "test[ ] the risk" that Bucklew's serious illness will lead to needless suffering during his execution. *Hamm v. Dunn*, 138 S. Ct. 828, 828–29 (2018) (Mem.) (Ginsburg, J., dissenting); *see also Taylor v. Illinois*, 484 U.S. 400, 410–11 (1988) (adversary process cannot "function effectively without adherence to rules of procedure that . . . provide each party with a fair opportunity to assemble and submit evidence"). This Court should reject respondents' effort to create a second-class litigation process that fails to adequately probe the severity of risks an inmate with a serious illness faces from the state's preferred method of execution.

3. *Respondents' "subjectively culpable" test amounts to studied indifference to risks.* — Respondents no doubt hope all will go well. That much is clear from their one-sided view of the record. But this Court must not allow respondents' hope for a smooth execution to play any role in the adjudication of Bucklew's claim.

Respondents suggest that because they do not intend to bring about what Bucklew fears will happen during the execution, Bucklew's fears reflect only the prospect of isolated mishaps that do not concern the Eighth Amendment. Resp. 38. According to respondents, unless respondents have a "subjectively culpable" state of mind, the planned execution can proceed. *Id.* 45. Put together, these arguments amount to an ostrich defense for risky methods of execution. This Court should reject it.

Glossip v. Gross made clear that the "subjectively culpable" state of mind that warrants judicial intervention is an "objectively intolerable" risk of needless suffering. 135 S. Ct. 2726, 2737 (2015). That is, a court should evaluate what is objectively known and knowable to a reasonable official. Allowing state officials to maintain studied ignorance about risks known to others (by, for example, preventing medical personnel in the execution chamber from learning about them) would serve no Eighth Amendment value. And letting prison officials cling to subjective hope that all will go well based on the state's own expert's opinion in the face of contrary expert evidence would short-circuit the fundamental purpose of litigation: a neutral arbiter who determines the objectively knowable risk of suffering that a method of execution presents in light of the inmate's medical condition.

This Court recognizes the distinction between an "unforeseeable accident," *La. ex rel. Francis v. Resweber*, 329 U.S. 459, 464 (1947) (plurality opinion), and an objectively knowable and substantial risk, *Glossip*, 135 S. Ct. at 2740. The former is not blameworthy precisely because it is unpredictable. The latter is blameworthy precisely because, though not certain, it is entirely predictable. The Eighth Amendment does not allow executions to proceed that pose an objectively intolerable risk of needless suffering, no matter how subjectively convinced prison officials are that all will go well.

II. AN AS-APPLIED CHALLENGER TO A METHOD OF EXECUTION NEED NOT PROVE AN AVAILABLE ALTERNATIVE METHOD.

Respondents offer little reason to impose on as-applied challengers the requirement of pleading and proving an available alternative. Instead, they pri-

marily assert that the Court has already decided the question. Resp. 43–44. But, as respondents acknowledge, this Court has addressed the issue only in facial challenges. *Id.* 43. The issue remains open.

This Court has already rejected the primary reason respondents offer to extend the requirement to as-applied challengers. They argue that the rationale motivating *Baze* and *Glossip*—that because capital punishment is constitutional there must be a lawful means of carrying it out—applies equally to as-applied challengers. Resp. 44. As respondents would have it, "[b]ecause capital punishment is constitutional, there must be a means of executing an individual prisoner lawfully sentenced to death." *Id.* But that is not true. The Eighth Amendment prohibits the execution of an insane man, even if he developed his mental defect *after* lawfully being tried and sentenced. *Ford v. Wainwright*, 477 U.S. 399, 401–02, 409–10 (1986). It is no threat to the death penalty to acknowledge that a man lawfully sentenced to death has *mentally* deteriorated to the point that executing him violates the Eighth Amendment. Likewise, it is no threat to the death penalty to acknowledge that a man lawfully sentenced to death has *physically* deteriorated to the point that executing him, at least by the means the state prefers, violates the Eighth Amendment.

Respondents compound their error when they argue that there can be no moral culpability in choosing to execute a lawfully sentenced inmate by the only means available. Resp. 44–47. Respondents appear to be suggesting that, if they have no choice about *how* to execute an inmate, then the fact that the only available choice will involve excruciating pain does not matter. But the unspoken premise of respondents' argument remains that the state *must* be able to car-

ry out an execution if the inmate was lawfully sentenced to death. Because that premise is false, state officials are always choosing between an execution that violates constitutional standards of cruelty and not executing the inmate at all. They remain culpable for choosing to make the inmate suffer.

Respondents' practical concerns about the length of litigation should not occupy this Court. Resp. 47–49. Respondents assert that Bucklew's claim has been frivolous from the outset. *Id.* 48. But even they have made (inadequate) changes to their plans to execute him in light of Bucklew's arguments and evidence. And their complaints that inmates' medical conditions change over time is remarkably callous. *Id.* They treat as an annoyance what should be a central concern: how an inmate's serious and progressive medical condition will affect what happens inside the execution chamber.

Respondents have thus unwittingly conceded their indifference to the challenges of executing an inmate with Bucklew's rare condition. Respondents never respond to Bucklew's argument that "indifference to an inmate's serious medical needs—and what those needs entail in connection with a method of execution—'constitutes the 'unnecessary and wanton infliction of pain' proscribed by the Eighth Amendment.'" Br. 44 (quoting *Estelle v. Gamble*, 429 U.S. 97, 104 (1976)). Instead, they complain about having to defend their overconfidence that the execution will proceed without incident. The Eighth Amendment's respect for dignity, both the inmate's and society's, requires more.

In the end, imposing on the seriously ill inmate the burden of pleading and proving an alternative method serves no constitutional values and offers no practical benefit. Indeed, inmates face serious practical

obstacles that state officials do not. *See* Br. 52–54; *see also infra* IV.B. Respondents, not seriously ill inmates, retain the obligation to design an appropriate method of execution that is not cruel. If they fail to do so, they should not remain free to inflict an excruciating method on the inmate.

III. THE RECORD SUPPORTS THE CONCLUSION THAT LETHAL GAS WILL SUBSTANTIALLY REDUCE THE RISKS BUCKLEW FACES FROM MISSOURI'S LETHAL INJECTION PROTOCOL.

If this Court extends the alternative method requirement to as-applied challengers, it should still reverse the Eighth Circuit's decision for either of two reasons.

First, respondents do not (because they cannot) defend the Eighth Circuit's actual reasoning. The Eighth Circuit applied a novel "single-witness" requirement under which Bucklew could not prevail unless the evidence about the likely duration of his suffering from both the state's method and his alternative came through a single expert witness. Br. 47; J.A. 867–68. Respondents dodge the legal error by attempting to relitigate the facts. This Court is under no obligation to reweigh the facts. It would be entirely appropriate to correct the Eighth Circuit's legal error and remand for reconsideration under the proper standard. *See Holland v. Florida*, 560 U.S. 631, 653–54 (2010).

Second, the record supports a reasonable factfinder's conclusion that lethal gas substantially reduces the risks Bucklew faces from Missouri's lethal injection protocol. Respondents' argument to the contrary repeats its selective disregard of evidence unfavorable to its view.

Respondents first attack Dr. Zivot for not providing evidence of the risks of lethal gas. Resp. 30. But as Dr. Zivot made clear, he is ethically prohibited from opining on an alternative method of execution, including whether a different form of execution would be feasible. J.A. 219–20. *See also* Brief of American Medical Association, *Amicus Curiae* in Support of Neither Party, at 3. Regardless, there is no reason to disregard his testimony about lethal injection merely because he did not testify about lethal gas.

Respondents next turn to their own expert and try to cast doubt on his assertion that lethal gas would be "just like" lethal injection, meaning that Bucklew would experience a sense of suffocation for approximately 20-30 seconds. J.A. 456, 458, 460. Respondents strangely claim that the testimony should not be credited because Dr. Antognini did not "know how quickly a gas is introduced," which could affect the level of suffering. Resp. 30 (citing J.A. 460). But Missouri's lethal injection protocol, upon which Dr. Antognini relied, provides no information about the rate at which the drug is injected. J.A. 313–14. And, as Dr. Antognini himself testified, the actual injection rate can vary by execution because "[t]here may be issues with how fast they can inject the drug." J.A. 325. So if a reasonable factfinder could credit Dr. Antognini regarding lethal injection, as respondents concede, the factfinder could also credit him regarding lethal gas. Even more fundamentally, respondents cannot seriously be suggesting that state officials would choose a rate at which to administer the gas that would cause needless suffering. *But see* Resp. 31. Surely a reasonable factfinder could conclude that Dr. Antognini's testimony rightly assumes the state will at least try to minimize suffering.

Respondents have also ignored significant evidence indicating that lethal gas will substantially reduce the risks Bucklew faces from a lethal injection protocol *before* the lethal drug is administered. As Dr. Zivot explained, Bucklew faces a number of severe risks that stem from the difficulty the execution team will have in gaining venous access. *See supra* 5–6; Br. 10–12; J.A. 231–35. This is in addition to the risks posed by Bucklew most likely having to lie supine, strapped to a gurney. J.A. 232–33. Respondents' own expert agreed that each of these risks increases the possibility that Bucklew would experience a sense of suffocation. J.A. 442–43. All of these risks would be eliminated or at least substantially reduced through a lethal gas protocol that would require neither venous access nor that Bucklew lay supine. Respondents never acknowledge these comparative benefits.

Lastly, respondents argue that Bucklew failed to provide evidence showing that he is sure or very likely to suffer severe pain during lethal injection. Resp. 33–38. As discussed above, respondents are simply selectively presenting the evidence upon which they base their subjective hope that all will go well. *See supra* 3–7, 9–10. The district court recognized that, given the procedural posture, it would be inappropriate to simply credit respondents' evidence and reject Bucklew's. The issue warrants a trial. J.A. 827.

IV. BUCKLEW MET HIS BURDEN TO DEFEAT RESPONDENTS' MOTION FOR SUMMARY JUDGMENT REGARDING ANY COMPARISON OF LETHAL GAS AND LETHAL INJECTION.

A. Respondents Did Not Dispute That Lethal Gas Was A Feasible And Readily Available Alternative Method When Moving For Summary Judgment.

Both the district court and Eighth Circuit ruled that respondents did not contest the feasibility and availability of lethal gas. J.A. 827, 866. Both courts were correct.

Respondents' summary judgment briefing focused solely on whether Bucklew established that lethal gas would significantly reduce his risk of severe pain, not on whether lethal gas was available. Dkt. 182 at 8–9; Dkt. 200 at 6–7. So, too, did their appellate brief. Brief of Appellees at 57–61, No. 17-3052 (8th Cir. Jan. 3, 2018). On appeal, respondents also let the district court's statement on the issue stand without objection. When it came time to oppose Bucklew's petition for certiorari, they again remained silent, this time in the face of *two* court rulings stating that they did not advance the argument. BIO at i; *id.* at 31–34.

This argument has been waived, repeatedly. *See* Sup. Ct. R. 15.2; *id.* R. 24 (merits briefs may not raise additional questions or change the substance of questions presented); *United Props. Inc. v. Emporium Dep't Stores, Inc.*, 379 F.2d 55, 60 n.12 (8th Cir. 1967). Although respondents may generally advance any properly preserved argument in support of a judgment without taking a cross-appeal, *United States v. Am. Ry. Express Co.*, 265 U.S. 425, 435 (1924), this Court has declined to reach an argument

raised by the state as respondent where that argument was not made in the lower courts or in the petition stage. *See Schiro v. Farley*, 510 U.S. 222, 228–29 (1994). Put simply, respondents are raising a *new* ground for the first time in this Court. This is not a *properly preserved* alternative ground for affirmance.[3]

In any event, even assuming Bucklew must plead and prove a feasible and available alternative, the record contains ample evidence creating a triable issue of fact. Br. 51–52; J.A. 866 (Eighth Circuit noting that lethal gas is authorized in Missouri, other states have ongoing studies of the method, and "at least preliminary indications that Missouri will undertake to develop a protocol"); *Johnson v. Precythe*, No. 17-2222, 2018 WL 4055908, at *4 (8th Cir. Aug. 27, 2018) (describing Oklahoma report on nitrogen hypoxia and concluding, "[t]hat researchers have yet to decide which is the *best* among several feasible methods of implementation does not definitively refute [petitioner's] allegation that Missouri could feasibly implement this alternative without undue delay.").

B. An Inmate Challenging His Method Of Execution Need Not Detail The Protocols For His Execution.

Respondents try an end-run around the evidence that lethal gas is feasible and readily available by arguing that Bucklew never proposed a detailed protocol for how to implement the method. Resp. 25. Bucklew did not because there is no legal basis for impos-

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[3] Bucklew does not deny that, if the Court decides to extend the alternative method requirement to as-applied challengers, respondents may argue *at trial* that lethal gas is not a reasonably available alternative. The point is that they never denied that a reasonable factfinder could conclude that lethal gas is an available alternative.

ing that requirement on him. Indeed, the Eighth Circuit, when remanding his claim for litigation beyond the pleadings, specifically instructed that Bucklew "may not be permitted to supervise every step of the execution process." *Bucklew v. Lombardi*, 783 F.3d 1120, 1128 (8th Cir. 2015) (en banc). Respondents are criticizing Bucklew for failing to propose details the Eighth Circuit's mandate barred him from proposing.

Regardless, there is no basis for imposing such a burden on an inmate. Setting aside the practical constraints on inmates in developing detailed protocols, Br. 52–53, Bucklew has no constitutional right to be executed in a particular way. But he has the right, and has consistently asserted his right, *not* to be executed in an unconstitutionally cruel manner. *See Jackson v. Fair*, 846 F.2d 811, 817 (1st Cir. 1988) ("Although the Constitution does require that prisoners be provided with a certain minimum level of medical treatment, it does not guarantee to a prisoner the treatment of his choice."). To the extent the requirement is imposed on as-applied challengers at all, they should be required to do no more than identify an alternate method of execution that the state can reasonably implement. Whether and how the state chooses to do so, consistent with constitutional standards, is not a matter for the inmate to dictate.

Principles of state sovereignty support Bucklew's view. *See In re Blodgett*, 502 U.S. 236, 239 (1992) (per curiam). The state should retain the prerogative to determine what resources it wishes to devote to executions and how it will live up to its constitutional obligation to ensure humane executions. A court should not, at an inmate's direction and without giving the state an opportunity to devise a constitutional alternative, dictate one particular path. *See Hutto v. Finney*, 437 U.S. 678, 683 (1978) (noting that federal

district court "did not immediately impose a detailed remedy of its own," but instead "offered prison administrators an opportunity to devise a plan of their own for remedying the constitutional violations"); *Brown v. Plata*, 563 U.S. 493, 511 (2011). In addition, some states, including Missouri, prefer to keep a portion of their protocols secret. *See* Mo. Rev. Stat. § 546.720; *id.* § 217.075. Requiring inmates to detail their own protocol would undermine that sovereign prerogative as well.

This Court has never held that an alternate method must be available by statute or immediately available to the state. *Arthur v. Dunn*, 137 S. Ct. 725, 729 (2017) (Sotomayor, J., dissenting). And for good reason. Such a requirement would lead to arbitrary applications of the Eighth Amendment and give states the power to violate a capital inmate's constitutional rights by limiting the methods that are statutorily available or by refusing to develop or maintain the ability to carry out particular methods. Brief of Scholars and of Academics of Constitutional Law as *Amicus Curiae* in Support of Petitioner, at 16.

Here, Bucklew has proposed lethal gas as an alternate method, which Missouri allows by statute. Missouri previously employed lethal gas but has not maintained its gas chamber, nor has it developed a new protocol for lethal gas employing modern equipment. That has been Missouri's choice. But it cannot and should not be Missouri's excuse. Among other evidence, Bucklew demonstrated that other states are in the process of developing detailed protocols for execution by nitrogen hypoxia. The method is available to Missouri, should it choose to try to develop a protocol for it. *See Johnson*, 2018 WL 4055908, at *4 ("We cannot accept, however, that a State's unwillingness to employ a method that would significantly reduce a

substantial risk of severe pain makes the method infeasible."). Bucklew should be required to prove no more. Respondents' suggestion that research on lethal gas is insufficient to develop a protocol, Resp. 15, rings hollow in light of the fact that they made no meaningful effort to develop one. J.A. 489–93 (testimony that Department of Corrections employee who was previously tasked with revising Missouri's lethal injection protocol "did a little bit of research" and "read a few articles" on lethal gas because he wanted "a working knowledge" of what lethal gas "could entail," and then decided he had "hit a wall" and chose not to "really dig deeper"); *id.* 503 (testimony that Department of Corrections is capable of undertaking investigation of viability of lethal gas).

Whatever Bucklew is required to prove, it should not be more detail than Missouri provides for its lethal injection protocol. Yet respondents would require Bucklew to provide "specific details about the method, rate, quantity, quality, concentration, delivery, and timing of its administration." Resp. 26. Missouri's protocols provide no information about the rate at which the drug is injected, which Dr. Antognini opined would affect how quickly it would take effect. J.A. 313.[4] Respondents also refused to provide information on the quality and concentration of pentobarbital to avoid revealing whether Missouri uses manufactured or compounded pentobarbital. J.A. 1004. Respondents are unfairly demanding detail from Bucklew that they refuse to provide. Brief of Former Judges and Prosecutors *Amici Curiae* in Support of Petitioner, at 28–29 (describing "information

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[4] Variations in speed of administration of lethal injection may cause an inmate to react violently to the drugs. Brief of Scholars and of Academics of Constitutional Law as *Amicus Curiae* in Support of Petitioner, at 6–7.

imbalance" in requiring plaintiff to allege an alternative method where state secrecy laws prohibit disclosure of execution procedures).

V. BUCKLEW'S CLAIMS ARE NOT BARRED BY THE STATUTE OF LIMITATIONS OR *RES JUDICATA*.

Respondents' efforts to avoid this litigation through preclusion and the statute of limitations have failed at every turn. They should not short circuit this litigation now.

Bucklew did not raise his claims too late. The statute of limitations for Bucklew's as-applied challenge is five years. Mo. Rev. Stat. § 516.120(4). Respondents contend that the limitations period began to run in June 2008—before Missouri even implemented its current single-drug protocol—because Bucklew sought funding for an expert to conduct a medical examination. Resp. 54. However, that request was denied. So, too, were all seven of Bucklew's subsequent requests over the next six years. Dkt. 12 at 8–12. Only after Dr. Zivot started examining Bucklew's medical condition in April 2014 did Bucklew obtain the factual basis for his claim. J.A. 108–09.

Respondents note that Dr. Zivot did not physically examine Bucklew until May 12, 2014, three days after Bucklew filed his initial complaint. Resp. 55–56. But that physical examination was just one piece of Dr. Zivot's review. Before Bucklew filed his initial complaint, Dr. Zivot examined Bucklew's medical records through February 2014. Zivot Decl. ¶ 8, Dkt. 1-1. Those records showed that Bucklew's condition, which is progressive, J.A. 328, 648–49, had sufficiently deteriorated to support a viable Eighth Amendment claim challenging Missouri's lethal injection plan. *Compare* J.A. 644–46 (in April 2012, Bucklew

was not yet at risk of serious hemorrhage) *with* J.A. 647–48 (in October 2013, Bucklew's hemangioma had increased in size). Dr. Zivot's subsequent physical examination both reaffirmed the viability of Bucklew's claim and strengthened it. Bucklew's claim was timely filed in May 2014. *Wallace v. Kato*, 549 U.S. 384, 388 (2007).

Respondents' *res judicata* argument similarly fails. Respondents contend that Bucklew should have raised his as-applied challenge in an earlier case, *Zink v. Lombardi*, No. 2:12-cv-04209 (W.D. Mo. filed Aug. 1, 2012), which involved a facial challenge to Missouri's lethal injection protocol. Resp. 56–57. However, the deadline to amend the pleadings in that case was in January 2014, *before* Dr. Zivot examined Bucklew's medical condition. *Zink v. Lombardi*, No. 2:12-cv-04209 (W.D. Mo. filed Jan. 13, 2014) (ECF 271). Moreover, an as-applied challenge is not the same thing as a facial challenge, especially where, as here, the two claims are based on different facts. *Whole Woman's Health v. Hellerstedt*, 136 S. Ct. 2292, 2305 (2016). Bucklew's as-applied claim, based on new facts and a different legal theory, was properly brought in a new action. J.A. 878–81.

CONCLUSION

The judgment of the Court of Appeals should be reversed.

Respectfully submitted,

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September 14, 2018

No. 17-8151

IN THE

Supreme Court of the United States

RUSSELL BUCKLEW,

Petitioner,

—v.—

ANNE PRECYTHE, *et al.*,

Respondent.

ON WRIT OF CERTIORARI TO THE UNITED STATES COURT OF APPEALS FOR THE EIGHTH CIRCUIT

BRIEF *AMICI CURIAE* OF THE AMERICAN CIVIL LIBERTIES UNION AND THE ACLU OF MISSOURI IN SUPPORT OF PETITIONER

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INTERESTS OF AMICI[1]

The American Civil Liberties Union (ACLU) is a nationwide, nonprofit, nonpartisan organization of approximately 1.75 million members dedicated to the principles of liberty and equality embedded in the United States Constitution. In the nearly 100 years since its founding, the ACLU has appeared in myriad cases before this Court, both as merits counsel and as an *amicus curiae*, to defend constitutional rights, including numerous cases involving the criminal justice system and capital punishment, such as *Mapp v. Ohio*, 367 U.S. 643 (1961); *Escobedo v. Illinois*, 378 U.S. 478 (1964); *Miranda v. Arizona*, 384 U.S. 436 (1966); *Terry v. Ohio*, 392 U.S. 1 (1968); *Furman v. Georgia*, 408 U.S. 238 (1972); *Chicago v. Morales*, 527 U.S. 41 (1999); *Atkins v. Virginia*, 536 U.S. (2002); and *Kennedy v. Louisiana*, 554 U.S. 407 (2008).

The ACLU represents Petitioner Russell Bucklew before the Inter-American Commission on Human Rights (IACHR). The Commission has ruled that, in light of Mr. Bucklew's unique medical condition and the excruciating pain he would suffer if executed by lethal injection, doing so would violate the prohibition on cruel and inhuman punishment and amount to torture. Inter-American Commission on Human Rights, Report No. 28/18, Case No. 12,958, Report on Merits, Russell Bucklew, United

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[1] No counsel for a party authored this brief in whole or in part, and no person or entity, other than *amici curiae*, their members, and their counsel, made a monetary contribution to the preparation or submission of this brief. The parties have provided blanket consent to the filing of amicus briefs in this case, and copies of the letters of consent are on file with the Clerk's Office.

States (March 18, 2018) (IACHR Report), *reproduced in* Amicus Br. of ACLU in Support of Petitioner App., *Bucklew v. Precythe*, No. 17-8151 (Apr. 6, 2018) (ACLU Cert. Amicus App.).

The ACLU of Missouri is one of the ACLU's statewide affiliates and has more than 19,000 members. The ACLU of Missouri has provided direct representation and acted as an *amicus curiae* in numerous state and federal cases challenging the administration of the death penalty.

SUMMARY OF ARGUMENT

I. If Missouri is allowed to execute Russell Bucklew by lethal injection, he will choke on his own blood and suffocate for four minutes before dying. This does not happen with other lethal injection executions. But Mr. Bucklew suffers from cavernous hemangioma, a rare medical condition that will lead to these results and make the lethal injection procedures particularly excruciating in his case. To subject Mr. Bucklew to such severe pain and suffering, far beyond that involved in lethal injection generally, would be cruel and unusual punishment. Just as a state could not subject a criminal defendant to waterboarding, a form of temporary suffocation, as punishment for a crime, so Missouri cannot constitutionally subject Mr. Bucklew to the prolonged suffocation that lethal injection would create in his particular circumstance.

This conclusion is reinforced by the fact that subjecting anyone to such prolonged and intense pain and suffering is contrary to global standards of decency, reflected in international and national law the world over. The Court's Eighth Amendment

jurisprudence looks to such international law not because it is binding, but to inform its judgment about the standards of decency that the Eighth Amendment protects. Here, international law makes clear that a state cannot lawfully subject a criminal defendant—or anyone else—to suffocation in his own blood.

While international law does not prohibit capital punishment per se, nor all forms of lethal injection, it does prohibit any execution method that would constitute torture or cruel, inhuman, or degrading treatment. And in assessing whether a given practice amounts to torture or cruel, inhuman, or degrading treatment, international law takes into account the particular characteristics of the individual affected. It therefore requires considering the effects of Mr. Bucklew's cavernous hemangioma on the suffering he will endure. While others executed by lethal injection will not suffocate in their own blood, Mr. Bucklew will.

Asphyxiation in one's own blood for four minutes until one dies certainly qualifies as torture or cruel, inhuman, or degrading treatment or punishment, and, as such, is absolutely prohibited by international law. If subjecting Mr. Bucklew to the substantially less severe practice of waterboarding would violate these international norms, then *a fortiori*, subjecting him to prolonged suffocation in his own blood until he dies does as well.

II. In as-applied challenges to a method of execution, neither the Eighth Amendment nor international law supports placing the burden of identifying a non-cruel method of punishment on the defendant rather than the state. While this Court

has held that a *facial* challenge to a method of execution requires a showing that a less painful execution alternative exists, that burden is inappropriate where, as here, an individual mounts only an *as-applied* challenge. The Court in *Glossip v. Gross*, 135 S. Ct. 2726 (2015), reasoned that because a facial challenge to a method of execution would, absent an available alternative method, constitute a *de facto* invalidation of the death penalty itself, the defendant must show an available alternative. This as-applied challenge, however, does not implicate the *de facto* validity of the death penalty. To rule for Mr. Bucklew would leave unaffected lethal injection as to other condemned persons.

This Court's rulings that "deliberate indifference" to an inmate's medical needs violates the Eighth Amendment also supports imposing on the state the obligation to avoid a method of execution that, because of Mr. Bucklew's unique medical condition, will inflict prolonged and excruciating suffering, far beyond that generally associated with lethal injection. Thus, *Glossip*'s requirement for facial challenges should not be extended to this as-applied challenge.

International law also supports placing the burden of proving a non-cruel method of execution on the state rather than the defendant in an as-applied challenge. International law imposes an affirmative obligation on states to *prevent* torture or cruel, inhuman, or degrading treatment or punishment. The United States has ratified both the Convention Against Torture and Other Cruel, Inhuman or Degrading Treatment or Punishment and the International Covenant on Civil and Political Rights,

both of which impose an affirmative duty of prevention upon signatory states. Where, as here, a particular execution method as applied to a particular individual will foreseeably result in torture or cruel, inhuman, or degrading treatment or punishment, the state's duty to prevent such conduct means that it can proceed only if it identifies an alternative method that will *not* inflict torture or cruel, inhuman, or degrading treatment or punishment.

ARGUMENT

I. SUBJECTING MR. BUCKLEW TO PROLONGED SUFFOCATION IN HIS OWN BLOOD IS CRUEL AND UNUSUAL PUNISHMENT IN VIOLATION OF THE EIGHTH AMENDMENT.

If Missouri executes Mr. Bucklew by lethal injection, the results will be gruesome and excruciatingly painful. Mr. Bucklew's rare condition, cavernous hemangioma, has caused blood-filled tumors to grow in his head, neck, and throat—tumors that often block his airway and easily rupture and bleed. A medical expert who examined Mr. Bucklew concluded that if Missouri is permitted to execute him by lethal injection, he is "highly likely to experience . . . the excruciating pain of prolonged suffocation resulting from the complete obstruction of his airway." Pet. App. 109a ¶ III.E. Mr. Bucklew's throat tumor will likely rupture, and "[t]he resultant hemorrhaging will further impede his airway by filling his mouth and airway with blood, causing him to choke and cough on his own blood during the lethal injection process." *Id.* ¶ III.F.

Subjecting an individual to four minutes of suffocation in his own blood until he dies is indisputably cruel and unusual. A plurality of this Court noted in *Baze v. Rees*, 553 U.S. 35 (2008), that absent the initial drug in the lethal injection protocol, which renders an individual unconscious, the suffocation caused by the second two drugs would be unconstitutionally cruel and unusual. *Id.* at 53 ("It is uncontested that, failing a proper dose of sodium thiopental that would render the prisoner unconscious, there is a substantial, constitutionally unacceptable risk of suffocation from the administration of pancuronium bromide and pain from the injection of potassium chloride."). Because, in Mr. Bucklew's case, the process of administering the initial drug will cause prolonged suffocation *before* he loses consciousness, it is indisputably cruel and unusual.

As this Court stated more than a century ago, "Punishments are cruel when they involve torture or a lingering death." *In re Kemmler*, 136 U.S. 436, 447 (1890). The Eighth Amendment prohibits the kinds of punishments that "disgraced the civilizations of former ages, and make one shudder with horror to read of them." *Whitten v. State*, 47 Ga. 297, 301 (1872); *State v. Feilen*, 126 P. 75, 76 (Wash. 1912) (quoting *Whitten*, 47 Ga. at 301); *State v. Woodward*, 68 S.E. 385, 388 (W. Va. 1910) (same); *see also Estelle v. Gamble*, 429 U.S. 97, 102 (1976) ("[T]he primary concern of the drafters [of the Eighth Amendment] was to proscribe 'torture(s)' and other 'barbar(ous)' methods of punishment." (quoting *Gregg v. Georgia*, 428 U.S. 153, 170 (1976)). That is precisely what is contemplated if Mr. Bucklew is subjected to lethal injection.

This conclusion is reinforced by reference to international law. For well over half a century, "the Court has referred to the laws of other countries and to international authorities as instructive for its interpretation of the Eighth Amendment's prohibition of 'cruel and unusual punishments.'" *Roper v. Simmons*, 543 U.S. 551, 575 (2005) (citing *Trop v. Dulles*, 356 U.S. 86, 102-03 (1958) (plurality opinion), and collecting cases).

In *Roper*, for example, this Court held that the juvenile death penalty offends civilized standards of decency, in part because "the weight of authority against it . . . in the international community, has become well established." 543 U.S. at 578. "The opinion of the world community," the Court observed, "while not controlling our outcome, does provide respected and significant confirmation for our own conclusions." *Id.; see also, e.g., Graham v. Florida*, 560 U.S. 48, 80 (2010) (examining the juvenile sentencing practices of other countries in accordance with the Court's "longstanding practice in noting the global consensus against the sentencing practice in question.").

Here, international law is informative in two respects: (a) it requires that assessing whether a given punishment is permitted or prohibited requires consideration of the individual's subjective characteristics; and (b) international law absolutely forbids torture and cruel, inhuman or degrading treatment or punishment, and those prohibitions bar the four-minute asphyxiation of Mr. Bucklew in his own blood at issue here.

A. The Assessment of Whether a Given Practice is Torture or Cruel, Inhuman, or Degrading Under International Law Considers an Individual's Specific Characteristics.

International law does not generally prohibit the death penalty following a fair trial. *See e.g.*, International Convention on Civil and Political Rights, art. 6 (2), Dec. 16, 1966, 999 U.N.T.S. 171 (ICCPR) (recognizing that states may impose the death penalty under certain limited circumstances); *see also* African Charter on Human and Peoples' Rights art. 4, 24-26, Nov. 2015, 21 I.L.M. 58 (1982) (ACHPR); General Comment No. 3 on the ACHPR: the Right to Life, art. 4 at ¶¶ 24-26 (2015); American Convention on Human Rights, art. 4(2), Nov. 21, 1969, 1144 U.N.T.S. 123 (ACHR); European Convention for the Protection of Human Rights and Fundamental Freedoms, art. 2(1), Nov. 4, 1950, E.T.S. No. 5; 213 U.N.T.S. 221. But it does require that executions be carried out "in such a way as to cause the least possible physical and mental suffering." Human Rights Committee, General Comment 20, Article 7 (Forty-fourth session, 1992), ¶ 6 U.N. Doc. HRI/GEN/1/Rev.1 at 30 (1994). And international law prohibits states from using methods that constitute torture or cruel, inhuman, or degrading treatment or punishment.

Human rights bodies have upheld the lawfulness of lethal injection under this framework. *Cox v. Canada*, Comm. No. 539/1993, U.N. Doc. CCPR/C/52/D/539/19930 (1994); *Kindler v. Canada*, Comm. No. 470/1991, U.N. Doc. CCPR/C/48/D/470/

1991 (1993) (lethal injection found not to violate ICCPR, art. 7 (prohibition on torture and other cruel, inhuman, or degrading treatment or punishment). But where a method of execution as applied to a specific individual would inflict pain and suffering sufficiently severe to constitute torture or cruel, inhuman, or degrading treatment or punishment, it is absolutely prohibited.

To constitute cruel, inhuman, or degrading treatment or punishment, suffering must go beyond "that inevitable element of suffering or humiliation connected with a given form of legitimate treatment or punishment." *Iorgov v. Bulgaria*, no. 40653/98, ¶71, E.C.H.R. 2004-I. This assessment necessarily looks to the effect of the treatment, *taking into account the individual's particular characteristics.* Whether conduct amounts to torture, for example, "depends on all the circumstances of the case, such as the duration of the treatment, its physical or mental effects, and, in some cases, the *sex, age, and state of health of the victim*, etc." *Selmouni v. France*, no. 25803/94, ¶100, E.C.H.R. 1999 (emphasis added); *see also Vuolanne v. Finland*, Comm. No. 265/19867 U.N.Doc. Supp. No. 40 (A/44/40) at 249, 256 (1989); *Al-Saadoon v. United Kingdom*, no. 61498/08, ¶121, E.C.H.R. 2010-IV; *Prosecutor v Delic*, IT-04-83-T Trial Judgment, 50-a (15 Sept. 2008).

So, too, "[t]he assessment of th[e] minimum" required under the cruel, inhuman, or degrading punishment standard "is relative and depends on all the circumstances of the case, such as the duration of the treatment and its physical or mental effects." *Cicek v. Turkey*, no. 25704/94, ¶ 172, E.C.H.R. 2001.

Courts regularly consider the health and age of an individual in evaluating whether treatment constitutes torture or cruel, inhuman, or degrading treatment or punishment. *See, e.g.*, *Cronin v. Islamic Republic of Iran*, 238 F. Supp. 2d 222, 226-28 (D.D.C. 2002) (discussing plaintiff's pre-existing medical condition in assessing whether his alleged pain and suffering was sufficiently severe to hold Iran responsible for plaintiff's torture under 28 U.S.C. § 1605A(a)(1)); *Trajano v. Marcos-Manotoc*, 978 F.2d 493 (9th Cir. 1992) (determining whether plaintiff's pain and suffering was sufficiently severe to constitute torture based on numerous factors including the alleged victim's age); *Aydin v Turkey*, no. 57/1996/676/866, E.C.H.R. 2001-I (1997) (considering individual's age in assessing whether police interrogation methods amounted to torture); *Case of the "Street Children" v. Guatemala*, Judgment of Nov. 19, 1999, Inter-Am. Ct. H.R. ¶ 152 (1999) (noting individual's "tender age" in assessing whether alleged conduct constituted torture).

For this reason, the African Commission on Human and Peoples' Rights has held that while execution by hanging may *generally* be consistent with international law, it may "not be compatible with the respect for the inherent dignity of the individual" as applied in some instances, such as when it is "carried out without appropriate attention to the weight of the person condemned" and thus could result in "either slow or painful strangulation, because the neck is not immediately broken by the drop, or at the other extreme, in the separation of the head from the body." *Ditschwanelo v. Botswana*, no. 277/2003, Merits, ¶169, Afr. Comm. H.P.R. (2003).

The gruesome chain of events contemplated in Mr. Bucklew's case are not the consequence of Missouri's protocol *in general*, but of its particular application to Mr. Bucklew, whose rare medical condition renders his prolonged suffocation in his own blood all but certain, and far in excess of the pain and suffering that generally accompanies lethal injection. As the Inter-American Commission concluded, for the state to execute Mr. Bucklew in such a fashion would constitute torture or cruel and inhuman punishment in violation of international law. IACHR Report ¶ 98 (ACLU Cert. Amicus App. 53a).

B. International Law Deems Forms of Treatment Short of Four-Minute Asphyxiation in One's Own Blood as Torture or Cruel, Inhuman, or Degrading.

International, regional, and national laws around the world categorically prohibit torture and other cruel, inhuman, or degrading treatment or punishment.[2] Those prohibitions are so universally

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[2] All of the major international and regional human rights treaties and other international instruments prohibit torture and other cruel, inhuman, or degrading treatment or punishment. *See, e.g.*, Universal Declaration of Human Rights, Dec. 10, 1948, art. 5, G.A. Res 217A (III), U.N. Doc. A/810 (1948) ("No one shall be subjected to torture or to cruel, inhuman, or degrading treatment or punishment."); ICCPR, art. 7; CAT, arts. 2, 16; ACHPR, art. 5; American Declaration on the Rights and Duties of Man, May. 2, 1948, art. XXV, OEA/Ser.L./V.II.23, doc. 21, rev. 6 (1948); ACHR, art. 5; European Convention for the Protection of Human Rights and Fundamental Freedoms, Nov. 4, 1950, art. 3, 213 U.N.T.S. 221; *see also* European Convention for the Prevention of Torture and

recognized that they now form part of customary international law. *Restatement (Third) of the Foreign Relations Law of the United States* §§ 331 cmt. e; 702(d) cmt. n (1987).

As noted above, those laws prohibit punishment that inflicts pain or suffering beyond "that inevitable element of suffering or humiliation connected with a given form of legitimate treatment or punishment." *Soering v. United Kingdom*, no. 14038/88, Judgement, ¶ 100, E.C.H.R. 1989; *see also Iorgov*, no. 40653/98 at ¶ 71; *Ireland v. United Kingdom*, no. 5310/71, E.C.H.R. (1978) (noting that the prohibition on torture was meant to "attach a special stigma to deliberate inhuman treatment causing very serious and cruel suffering").

Missouri's proposed method of executing Mr. Bucklew would violate these international prohibitions, which have recognized other forms of treatment short of four-minute asphyxiation in one's own blood resulting in death as torture or cruel, inhuman, or degrading treatment or punishment.

For example, waterboarding—which produces the sensation of suffocation for a far shorter length of

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Inhuman or Degrading Treatment or Punishment, Nov. 26, 1987, E.T.S. No. 126.

The United States has ratified the CAT and the ICCPR. *See* Addendum 5, Oct. 21, 1994, CAT/C/28/Add.5; ICCPR, June 8, 1992, 138 Cong. Rec. S4781-01. In addition, more than eighty national constitutions prohibit torture, and other forms of cruel, inhuman, or degrading treatment or punishment. M. Cherif Bassiouni, *Human Rights in Context of Criminal Justice: Identifying International Procedural Protections and Equivalent Protections in National Constitutions*, 3 Duke J. Comp. & Int'l L. 235, 263-64 & n.128 (1983).

time than Mr. Bucklew is expected to suffer—constitutes torture under international law. The International Military Tribunal for the Far East (IMTFE), convened by the Allied nations, including the United States, following World War II, concluded that Japanese forces committed torture when they subjected prisoners-of-war and civilian internees to waterboarding. Transcripts of the Proceedings and Judgment of the International Military Tribunal for the Far East at 48,413 (Nov. 4, 1948) (IMTFE Record), *reproduced in* The Tokyo War Crimes Trial (R. John Pritchard & Sonia Magbanna Zaide eds., 1981); *see also* Evan Wallach, *Drop by Drop: Forgetting the History of Water Torture in U.S. Courts*, 45 Colum. J. Transnat'l L. 468 (2007) (collecting decisions of domestic and international courts finding waterboarding and other forms of water torture illegal). "Among these tortures [used by Japanese forces was] the water treatment," IMTFE Record at 49,663, in which an individual was tied or held down on his back, a cloth placed over his nose and mouth, and water poured over the cloth to create the sensation of drowning or held under water until almost drowned, IMTFE Record at 12,940, 14,168, 49,663-64. *Cf. United States v. Lee*, 744 F.2d 1124 (5th Cir. 1984) (affirming federal conviction for civil rights violations in case of sheriff and several deputies who used "water torture" against suspects during interrogation).

In its annual reports on other countries' human rights practices, the State Department has repeatedly classified "near-drowning," "asphyxiation in water," and "submersion of the head in water" as forms of torture and condemned those practices. *See, e.g.*, U.S. Dep't of State, Bureau of Democracy,

Human Rights, and Labor, Country Reports on Human Rights Practices, Sri Lanka 2014 Report (Jun. 25, 2015), http://www.state.gov/j/drl/rls/hrrpt/humanrightsreport/index.htm?year=2015&dlid=252975; U.S. Dep't of State, Bureau of Democracy, Human Rights, and Labor, Country Reports on Human Rights Practices, Sri Lanka 2011 Report, http://www.state.gov/j/drl/rls/hrrpt/humanrightsreport/index.htm?dlid=186475; U.S. Dep't of State, Bureau of Democracy, Human Rights, and Labor, Country Reports on Human Rights Practices, Tunisia 2010 Report (Apr. 8, 2011), https://www.state.gov/j/drl/rls/hrrpt/2010/nea/154474.htm.

The severe psychological suffering caused by asphyxiation has also been demonstrated in the social scientific literature. *See* Metin Basoglu, *Waterboarding is severe torture: Research findings* (Dec. 25, 2012), https://metinbasoglu.wordpress.com/2012/12/25/waterboarding-is-severe-torture-research-findings/ (surveying research of a leading scholar on torture and cruel, inhuman, and degrading treatment and punishment, including the results of a study finding that, as among 45 different forms of torture, treatment involving suffocation or asphyxiation was the strongest predictor of post-traumatic stress disorder (PTSD)).

Applying these principles to Missouri's plan to execute Mr. Bucklew by lethal injection, the Inter-American Commission found that doing so would inflict cruel and inhuman punishment and could result in torture:

> The Commission considers that this particular risk of choking on his own blood, being aware of it, and for a period

> of up to four minutes, taking in consideration the context of extreme stress and anxiety, would constitute cruel and inhuman punishment. The IACHR finds that the severity of the suffering that would be imposed under such circumstances could amount to torture.

IACHR Report ¶ 78 (ACLU Cert. Amicus App. 42a). The Commission ruled that allowing Missouri to proceed with the execution of Mr. Bucklew in such a fashion would violate the United States' international obligations to ensure it does not inflict cruel and inhuman punishment. *Id.* at ¶ 83 (ACLU Cert. Amicus App. 45a).

In short, international law further confirms that executing Mr. Bucklew in this manner would "offend civilized standards of decency," *Roper*, 543 U.S. at 578, and would constitute either torture or cruel, inhuman, and degrading punishment. This supports the conclusion, independently compelled by Eighth Amendment jurisprudence itself, that Mr. Bucklew's execution would be cruel and unusual. As this Court reasoned more than a century ago, "[p]unishments are cruel when they involve torture or a lingering death . . . something more than the mere extinguishment of life." *In re Kemmler*, 136 U.S. at 447.

II. BECAUSE LETHAL INJECTION IS CRUEL AND UNUSUAL AS APPLIED TO MR. BUCKLEW, THE STATE BEARS THE BURDEN OF IDENTIFYING AN ALTERNATIVE LAWFUL METHOD IF IT SEEKS TO EXECUTE HIM.

A. *Glossip* Places the Burden on the Offender Where a Facial Challenge Would Have the Effect of Invalidating the Death Penalty Across the Board, But that Logic Does Not Extend to an As-Applied Challenge that Affects Only a Single Person.

In *Glossip*, this Court placed the burden on an inmate raising a *facial* challenge to his method of execution to specify an alternative method "that is 'feasible, readily implemented, and in fact significantly reduce[s] a substantial risk of severe pain.'" *Glossip*, 135 S. Ct. at 2737 (quoting *Baze*, 553 U.S. at 52). It did so precisely because *Glossip* involved a *facial* challenge. The Court reasoned that "because it is settled that capital punishment is constitutional, '[i]t necessarily follows that there must be a [constitutional] means of carrying it out." 135 S. Ct. at 2732-33 (quoting *Baze*, 553 U.S. at 47); for this reason, the Court held that an inmate who facially challenges a method of execution must identify a feasible and readily implemented alternative method. *Id.* at 2737. That reasoning is inapplicable here.

Glossip placed the burden on the inmate so as not to permit facial challenges to methods of execution from *de facto* rendering the death penalty

unconstitutional across the board. That logic has no bearing, however, on Mr. Bucklew's individualized as-applied challenge. Should this Court conclude that executing Mr. Bucklew by lethal injection will cause a substantial risk of severe suffering because of his rare medical condition, lethal injection will otherwise continue to be available as a method of execution in Missouri.

This Court has in fact long recognized that while the death penalty is generally constitutional, *see Gregg*, 428 U.S. 153, it is not constitutional as applied to every individual. In *Atkins*, 536 U.S. 304, for example, the Court concluded that the execution of persons with intellectual disability would offend the standards of decency required by the Eighth Amendment. And in *Roper*, 543 U.S. 551, it held unconstitutional the death penalty as applied to juvenile offenders. Those holdings did not undermine the constitutionality of the death penalty in other contexts, as applied to other individuals who do not share the specific characteristics that rendered their executions cruel and unusual.

Moreover, this Court's longstanding rule that "deliberate indifference" to an inmate's specific medical condition can rise to the level of cruel and unusual punishment, *Estelle*, 429 U.S. at 104, further supports placing the burden on the state in as-applied cases. If Mr. Bucklew's medical condition required treatment and the state were deliberately indifferent to that fact, its actions would violate the Eighth Amendment. So, too, where it seeks to carry out a method of execution that it knows will inflict severe and excruciating pain because of his medical condition, the Eighth Amendment imposes on the

state an affirmative obligation to respond—here, by not using that method, and only proceeding with the execution if it can identify a method that would not inflict cruel and unusual punishment.

In short, the state's affirmative Eighth Amendment obligation to attend to the specific medical needs of its inmates supports the conclusion that, if Missouri seeks to execute Mr. Bucklew, it must identify a non-cruel way to do so. And because this challenge does not call into question lethal injection generally, nothing in *Glossip* or this Court's death penalty jurisprudence suggests that the burden of identifying an alternative method of execution should be placed on the inmate when the state's chosen method would constitute cruel and unusual punishment only as applied to him.

B. International Law Supports Placing the Burden on the State Because the State Has an Affirmative Duty to Prevent Torture or Cruel, Inhuman, or Degrading Treatment or Punishment.

International law also supports placing the burden of identifying a non-cruel method of execution on the state if it seeks to go forward with Mr. Bucklew's execution. The Convention Against Torture and Other Cruel, Inhumane or Degrading Treatment or Punishment, the International Covenant on Civil and Political Rights, and other international treaties that prohibit torture and cruel, inhuman, or degrading treatment or punishment all impose affirmative obligations on states to prevent

such conduct.[3] States are required "to take measures designed to ensure that individuals within their jurisdiction are not subjected to torture or inhuman or degrading treatment or punishment." *Abu Zubaydah v Lithuania*, no. 46454/11, [GC] ¶632, E.C.H.R. 2018-I (2018).

This affirmative duty to *prevent* torture and cruel, inhuman, or degrading punishment means that unless Missouri can identify a method of execution that would not foreseeably violate these prohibitions, it cannot proceed with Mr. Bucklew's execution. In other capital cases, international human rights bodies and national courts have recognized that the state must bear this burden. *See* Committee Against Torture, Concluding Observations on the United States, CAT/C/USA/CO/3-5 ¶25, 19 January, 2014 (recommending that the United States "review its execution methods in order to prevent pain and prolonged suffering"); *Deena v. Union of India*, (1983) 4 SCC 645, 688 ¶¶ 81-82 (India), *available at* https://www.aclu.org/legal-document/deena-v-union-india-decision (finding that under India's constitution a "heavy burden"

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[3] *See* CAT arts. 2(1), 16; Committee Against Torture, General Comment No. 2, Implementation of Article 2 by States Parties, U.N. Doc. CAT/C/GC/2/CRP.1/Rev.4 (2007); ICCPR, art. 2; Human Rights Committee, General Comment No. 31, Nature of the General Legal Obligation Imposed on States Parties to the Covenant, U.N. Doc. CCPR/C/21/Rev.1/Add.13 (2004); footnote 2, *supra* (citing international and regional human rights treaties); *see also* Afr. Comm. H.P.R., *Commission Nationale des Droits de l'Homme et des Libertés v. Chad*, Comm. 74/92, Merits, 9th Annual Activity Report 1995-1996/96, 4 IHRR 94 1997; *Velásquez Rodríguez v. Honduras*, Merits. Inter-Am. Ct. H.R. (ser. C) No. 4, ¶¶ 174-75 July 29, 1988; IACHR Report ¶ 76 (ACLU Cert. Amicus App. 41a).

rests on the state to demonstrate that any method used "causes no greater pain than any other known method of executing the death sentence and it involves no barbarity, torture or degradation.").[4]

The Inter-American Commission's decision in Mr. Bucklew's case confirms this approach:

> The IACHR reiterates that, under peremptory norms of international human rights law and as reflected in the American Declaration, the United States has the duty to abstain from carrying out an execution when there is significant risk that it would breach the prohibition of cruel and inhuman treatment or torture. Compliance with this duty cannot be conditioned on the existence of "alternatives."

IACHR Report ¶ 80 (ACLU Cert. Amicus App. 43a).

Under both constitutional and international law, subjecting Mr. Bucklew to a method of execution that will result in prolonged suffocation in his own blood, inflicting pain far in excess of that inherent to lethal injection generally, is prohibited. If the state seeks to execute Mr. Bucklew, it bears the burden of identifying an alternative method that is not cruel and unusual.

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[4] The Nebraska Supreme Court has also followed this same approach. *See State v. Mata*, 275 Neb. 1, 67-69 (2008) (holding that electrocution is unconstitutional under the state constitution because it will inflict "intense pain and agonizing suffering" and requiring the state to "allege and demonstrate that a constitutionally acceptable method" is available).

CONCLUSION

For the above reasons, this Court should hold that the Eighth Amendment prohibits Missouri from executing Mr. Bucklew by lethal injection.

Respectfully submitted,

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No. 17-8151

In the Supreme Court of the United States

RUSSELL BUCKLEW,
Petitioner,

v.

ANNE L. PRECYTHE, DIRECTOR,
MISSOURI DEPARTMENT OF CORRECTIONS, *et al.*,
Respondents.

On Writ of Certiorari to the United States Court of Appeals for the Eighth Circuit

BRIEF OF AMERICAN MEDICAL ASSOCIATION, *AMICUS CURIAE*, IN SUPPORT OF NEITHER PARTY

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INTEREST OF *AMICUS*[1]

The American Medical Association (AMA) is the largest professional association of physicians, residents and medical students in the United States. Additionally, through state and specialty medical societies and other physician groups seated in its House of Delegates, substantially all physicians, residents, and medical students in the United States are represented in the AMA's policy making process. The AMA was founded in 1847 to promote the art and science of medicine and the betterment of public health, and these remain its core purposes. AMA members practice in every state and in every medical specialty.

The petitioner in this case, Mr. Russell Bucklew, asserts that he suffers from a rare and severe medical condition that will make his death by execution under the State of Missouri's standing execution protocol—death by lethal injection—cruel and inhumane. Instead, he asks the State to execute him by lethal gas. The State contends that in order to succeed on this claim he must show that the alternative method is readily available and will "substantially reduce the risk of severe pain," and that he has not done so because he has failed to offer sufficient evidence that one method is preferable over another. Brief in Opposition to Petition for Writ of Certiorari and in

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[1] The parties have consented to the filing of this brief. No party's counsel authored this brief in whole or in part. No party or counsel for a party made a monetary contribution intended to fund the preparation or submission of the brief. No person other than the AMA made a monetary contribution.

Opposition to Application for Stay of Execution at 28-36. Dr. Joel Zivot, an expert witness for Mr. Bucklew, felt ethically unable to compare the medical consequences of the alternative forms of execution allowed under Missouri law, and thus, according to the State, Mr. Bucklew failed to carry his burden of proof. Petition for Writ of Certiorari at 15.

This brief, submitted in support of neither party, is intended to lend context to Dr. Zivot's ethical stance. Physicians are members of a profession dedicated to preserving life, even when the hope of doing so is slight. Although state-mandated death is *not* a medical procedure, society continually attempts to medicalize this action in a self-deceiving effort to mitigate its barbarity.

The AMA uses this opportunity to restate the prohibition against physician participation in executions and explain the historic and modern rationales behind its position. Furthermore, as the publisher of the *AMA Code of Medical Ethics*,[2] the AMA has an interest in supporting physicians who behave ethically and in explaining the rationale behind the ethical positions of the medical profession.

Most importantly, though, the AMA believes the public should appreciate, on an important topic like capital punishment, what medical science knows and what it does not know. The decision to authorize execution should be based on a frank evaluation of that

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[2] The *AMA Code of Medical Ethics* is available from the AMA in print form and also through the AMA website at https://www.ama-assn.org/delivering-care/ama-code-medical-ethics.

uncertainty, rather than on a mistaken notion of what may be unduly characterized as "humane" or "dignified."

SUMMARY OF ARGUMENT

Starting with its origins at the time of Hippocrates, the medical profession has staunchly opposed physician assistance in state-mandated executions. This prohibition is based on more than happenstance or arbitrary tradition. Physician participation in capital punishment undermines the trust patients must accord their physicians in order for physicians to practice effectively. Furthermore, physician participation in executions falsely suggests to society that capital punishment can be carried out humanely, with the endorsement of the medical profession. Physicians should not further such a charade. Accordingly, Dr. Zivot is correct—testimony used to determine which method of execution would reduce physical suffering would constitute physician participation in capital punishment and would be unethical.

In addition, notwithstanding that technical medical issues may well underlie this Court's ultimate decision, the AMA declines to comment on those issues or to advocate for either party as to which method of death may be constitutionally preferred. The reasons for this "no position" stance are the same as those which underlay Dr. Zivot's prohibition: the AMA, being an organization of physicians, cannot ethically support or facilitate either method of capital punishment.

ARGUMENT

I. It Would Be Unethical for a Physician to Assist a Court or Executioner in Devising a Method of Capital Punishment by Testifying About the Comparative Levels of Pain a Condemned Prisoner Would Likely Suffer Under Alternative Execution Scenarios.

A. Physicians Are Ethically Prohibited from Participating in Execution by the Historic and Prevailing Standards of the Medical Profession.

The practice of medicine is a skilled profession anchored in the core ethical precept of beneficence to the patient. Thus, the Preamble to the Principles of Medical Ethics states: "The medical profession has long subscribed to a body of ethical statements developed primarily for the benefit of the patient."[3] One of the defining characteristics of any profession is the ability to self-regulate.[4] In return, members of the profession are committed to using their skills in a manner that upholds the integrity of their profession. Therefore,

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[3] The Principles of Medical Ethics and their Preamble are part of the *AMA Code of Medical Ethics*.

[4] "[Physicians] are governed by codes of ethics and profess a commitment to competence, integrity and morality, altruism, and the promotion of the public good within their domain. These commitments form the basis of a social contract between a profession and society, which in return grants the profession a monopoly over the use of its knowledge base, the right to considerable autonomy in practice and the privilege of self-regulation." Sylvia R. Cruess et al., *"Profession": A Working Definition for Medical Educators*, 16 TEACH. LEARN. MED. 74, 74-76 (2004).

unsurprisingly, medical ethics are as old as the practice of medicine itself, passed to future generations through medical training, and predating and prevailing regardless of government-sponsored licensure. Ethics codes in medicine have developed across "virtually all" ancient civilizations, time periods, and independently of one another,[5] and resurged as reminders to the profession of medicine's core responsibility when physician conduct falls below its contract to society.

In the 5th Century BCE, early practitioners of medicine swore an oath to the gods of the day to ground their practice in service to the best interest of their patients. HIPPOCRATIC OATH, https://goo.gl/3k4CMc (last visited Jul. 18, 2018) ("I will. . .benefit my patients according to my greatest ability and judgement, and I will do no harm or injustice to them"). The Hippocratic Oath included this vow: "I will not give a lethal drug to anyone if I am asked, nor will I advise such a plan." *Id.*

Modern versions of the oath no longer make promises to the gods of antiquity, but they keep to the same principles of duty to humanity as a whole and to the individual patient—not to a government edict or a political doctrine. The oath serves as an important reminder that physicians wield a potent skill, and they must do so humanely and not as technicians: "I will remember that there is art to medicine as well as

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[5] Although less famous than the Hippocratic oath, the medical fraternities of ancient India, seventh-century China, and early Hebrew society each had medical oaths or codes that medical apprentices swore to on professional initiation. Thomas Tung & Claude H. Organ, Jr., *Ethics in Surgery: Historical Perspective*, 135 JAMA 10, 10 (2000).

science, and that warmth, sympathy, and understanding may outweigh the surgeon's knife or the chemist's drug. . .that I do not treat a fever chart, a cancerous growth, but a sick human being." *See* Peter Tyson, *The Hippocratic Oath Today*, NOVA (Mar. 27, 2001), *available at* https://goo.gl/V2X7Up.[6]

The *AMA Code of Medical Ethics* was the first modern national medical ethics code in the world. *See* TUNG & ORGAN, JR., *supra* note 5. It is today the most comprehensive and well respected ethical code for physicians anywhere.[7] Ethical Opinion 9.7.3 *Capital Punishment*,[8] which sets forth the ethical position on

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[6] The modern version of the Hippocratic Oath was written in 1964 by Dr. Louis Lasagna while serving as Academic Dean of the School of Medicine at Tufts University. *Id.* Dr. Lasagna's oath is used by approximately one-third of US and Canadian medical schools. Melissa Bailey, *So Long, Hippocrates. Medical Students Choose Their Own Oaths*, STAT (Sep. 21, 2016), https://goo.gl/YMF3Ls.

[7] This Court and its individual justices have repeatedly relied on and cited to the *AMA Code of Medical Ethics* as guidance. *Lilly v. Commissioner*, 343 U.S. 90, 97 n.9 (1952); *Roe v. Wade*, 410 U.S. 113, 144 n.39 (1973); *Bates v. State Bar of Ariz.*, 433 U.S. 350, 369 n.20 (1977); *Cruzan v. Dir., Mo. Dep't of Health*, 497 U.S. 261, 288 & 308 (1990) (O'Connor, J., concurring & Brennan, J., dissenting); *Rust v. Sullivan*, 500 U.S. 173, 214 (1991) (Blackmun, J., dissenting); *Washington v. Glucksberg*, 521 U.S. 702, 731 (1997); *Vacco v. Quill*, 521 U.S. 793, 800 n.6 & 801 (1997); *Ferguson v. City of Charleston*, 532 U.S. 67, 81 (2001); *Baze v. Rees*, 553 U.S. 35, 64 & 112 (2008) (Alito, J., concurring & Breyer, J., concurring); *Nat'l Fed'n of Indep. Bus. v. Sebelius*, 567 U.S. 519, 592-93 (2012) (Ginsburg, J., dissenting).

[8] Ethical Opinions are determinations by the AMA Council on Ethical and Judicial Affairs of the AMA's positions on specific ethical issues. They are a part of the *AMA Code of Medical Ethics*.

physicians' participation in capital punishment, includes the following proscription:

> Debate over capital punishment has occurred for centuries and remains a volatile social, political, and legal issue. An individual's opinion on capital punishment is the personal moral decision of the individual. However, as a member of a profession dedicated to preserving life when there is hope of doing so, a physician must not participate in a legally authorized execution.

The AMA is not alone in its position. Whenever any medical body has addressed this question, the answer has remained the same; it is unethical to use the skills and training developed to care for the patient in order to kill at the request of the state. Timothy F. Murphy, *Physicians, Medical Ethics, and Capital Punishment*, 16 J. CLIN. ETHICS 160, 161 (2005) ("It does not appear that any professional medical group that has considered the matter has ever come to a different conclusion.").

Thus, the American College of Correctional Physicians, which represents physicians who provide health care services to incarcerated patients, states in its Code of Ethics that "[t]he correctional health professional shall . . . not be involved in any aspect of execution of the death penalty." ACCP CODE OF ETHICS, https://goo.gl/DVjkD5 (last visited Jul. 18, 2018). The American College of Physicians states in its Ethics Manual that "[p]articipation by physicians in the execution of prisoners except to certify death is unethical." AMERICAN COLLEGE OF PHYSICIANS: POLICY COMPENDIUM, https://goo.gl/e7ckDx (last visited

Jul. 18, 2018). The American Public Health Association has formally announced its policy position that "health professional participation in executions or pre-execution procedures is a serious violation of ethical codes." Am. Public Health Ass'n, Participation of Health Professionals in Capital Punishment, Policy Number 200125 (Jan. 2001). The American Society of Anesthesiologists has taken the position that "[i]t is a fundamental and unwavering principle that anesthesiologists, consistent with their ethical mandates, cannot use their art and skill to participate in an execution." Brief of *amicus curiae* American Society of Anesthesiologists Supporting Neither Party at 10-11, Baze v. Rees, 553 U.S. 35 (2008). The American Psychiatric Association has stated in its Principles of Medical Ethics that "[a] psychiatrist should not be a participant in a legally authorized execution." Am. Psychiatric Ass'n Principles of Med. Ethics § 1-4 (2013). At the international level, the World Medical Association, an organization whose members include approximately eighty national medical associations, asserts that "it is unethical for physicians to participate in capital punishment, in any way, or during any step of the execution process." 63rd Gen. Assembly of the World Med. Ass'n, *in* WMA Resolution to Reaffirm the WMA's Prohibition of Physician Participation in Capital Punishment (Oct. 2012).

In fact, this Court has itself acknowledged the ethical prohibition on physician participation (and participation by other health care professionals) in capital punishment. *Baze v. Rees*, 553 U.S. 35 (2008) (plurality), *Baze*, 553 U.S. at 63 (Alito, J., concurring), and 553 U.S. at 107 (Breyer, J., concurring).

B. Physician Assistance in the Design of Executions Would Undermine the Physician-Patient Relationship.

Medical ethics are not mere relics of antiquity; they form the foundation of medicine as a self-regulating profession. Codified ethics serve as reminders of the contract physicians have made to their patients and the community they serve to use their training for the good health of humanity. Most importantly, they demonstrate to the public that physicians can be trusted to provide the most intimate care, since the basis of the treating relationship is patient trust in the physician. *AMA Code of Medical Ethics* Opinion 1.1.1. *Patient-Physician Relationships* ("[t]he relationship between a patient and a physician is based on trust."). The physician has a duty to place the patient's welfare above other obligations, like the obligation to the state. *Id.* And, physicians must consider how their decisions reflect on the profession and upon other health care professionals. Preamble to the Principles of Medical Ethics. This relationship cannot be overstated. "Unless there is complete confidence in the sympathetic understanding of the physician as well as in his professional skill, very little can be accomplished." Francis W. Peabody, *The Care of the Patient*, 88 JAMA 877, 882 (1927).

Patient trust must be nurtured. Physicians who participate in executions at the expense of ethical rules risk confusing their responsibility to the patient with a responsibility to the state. If patients feel they cannot trust the independent judgment of their physician, they may avoid necessary medical care or withhold sensitive information from the physician. Scheduling, attending,

and following up on medical care is already stressful and time consuming for patients; the public does not need another barrier in access to health care.

Even ancillary involvement in execution by physicians risks jeopardizing public trust in the profession. Dr. Atul Gawande recorded that when one community learned that its local doctor participated in executions, the physician found a note posted to his clinic's door reading, "the killer doctor." Atul Gawande, *When Law and Ethics Collide: Why Physicians Participate in Executions*, 354 N. ENG. J. MED. 1222, 1225 (2006). He went on to state,

> The public has granted us extraordinary and exclusive dispensation to administer drugs to people, even to the point of unconsciousness, to put needles and tubes into their bodies, to do what would otherwise be considered assault, because we do so on their behalf—to save their lives and provide them comfort. To have the state take control of these skills for its purposes against a human being—for punishment—seems a dangerous perversion. Society has trusted us with powerful abilities, and the more willing we are to use these abilities against individual people, the more we risk that trust. The public may like executions, but no one likes executioners.

Id. at 1227.

Moreover, this Court recently noted that governments throughout history have attempted to corrupt the physician-patient relationship to "increase state power." *NIFLA v. Becerra*, No. 16-1140, slip op. at

12-13 (U.S. Jun. 26, 2018) ("In Nazi Germany, the Third Reich systematically violated the separation between state ideology and medical discourse. German physicians were taught that they owed a higher duty to the 'health of the Volk' than to the health of individual patients.") (citation omitted). The end result was a legal, physician-designed "killing program" credited as the "crucial step that led to the atrocities of Auschwitz." Robert D. Troung & Troyan A. Brennan, *Sounding Board: Participation of Physicians in Capital Punishment*, 329 N. ENG. J. MED. 1346, 1348-49 (1993).

The AMA is acutely aware of this stain on the medical profession. By refusing to participate in capital punishment, even when sanctioned by a free society, physicians are making a statement—even if symbolically—that their role is not to serve the state as experts in killing, but to minister to their patients as healers. Ethical physicians avoid any potential blurring of these fundamentally incompatible functions.

Thus, it is no coincidence that the Hippocratic Oath included a prohibition on using medical skills to cause death. Early physicians well foresaw the potential for society to co-opt their training to perform in the best interests of the state and not of the patient. To render technical advice in executions would be to step down a slippery slope. Somewhere near the bottom of that hill would be a loss of patient trust and an undermining of the patient-physician relationship.

C. Physician Participation in Executions Would Falsely Suggest that Capital Punishment can be Effectuated Humanely, with the Endorsement of the Medical Profession.

If the goal in performing executions were merely getting the job done quickly, cheaply, and with minimal pain, the problem of how to administer capital punishment would be readily resolved. Long before Dr. Guillotin advocated for his eponymous device, society knew how to conduct swift and certain beheadings.[9] The problem with beheadings, though, is that they are gruesome. They force the public to confront the enormity of the act.

What people much prefer is a way to accomplish the deed while believing there is something humane about it. Society wants to delude itself into a belief that capital punishment no longer represents a weighted moral choice, but is now somehow scientific—nearly antiseptic. This delusion, however, cheapens life and makes its extinction easier. The medical profession,

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[9] Dr. Joseph-Ignace Guillotin opposed the death penalty on principle, but wanted all criminals executed as painlessly as possible, and equitably, without exception for the aristocratic classes. *See* Dora B. Weiner, *The Real Doctor Guillotin*, 220 JAMA 85 (1972). He advocated for the use of "a simple mechanism" to replace burning alive, hanging, quartering, drowning and other slow and agonizing methods. *Id.* Unfortunately for Dr. Guillotin: "No one. . . could foresee in that winter of 1789 that the Revolution would go beyond the creation of a constitutional monarchy, nor that leaders of political factions would put their opponents to death for deviating from the party line." *Id.* at 89.

whose "essential quality" is an interest in humanity[10] and which reveres human life, should have no part in this charade.

In the United States, the prohibition on physician participation in execution was not done simply to honor the Hippocratic injunction, but more directly as the result of this country's century long march from hanging toward the overt imitation of medical practice in state sponsored execution protocols—always in search of the most "humane" way to kill. The goal of so-called humanity in execution has infamously lured several well-meaning physicians, even aside from Dr. Guillotin, down the road to ethical peril. Physicians have measured the length of rope in an effort to achieve precision in hangings and avoid decapitation. *See* Mahmoud Rayes et al., *Hangman's Fracture: A Historical and Biomechanical Perspective*, 14 J. NEUROSURG. SPINE 198, 205 (2011). While it was a dentist who designed the electric chair for execution, it was physicians who advised on the "proper length of time to apply electricity" while attending the first such execution. Christopher J. Levy, *Conflict of Duty: Capital Punishment Regulations and AMA Medical Ethics*, 26 J. LEGAL MED. 261, 263 (2005). An army medical corps officer invented the gas chamber in 1924 after the original plan of surprise gassing of prisoners in their cells was deemed "impractical." Meghan S. Skelton, *Lethal Injection in the Wake of* Fierro v. Gomez, 19 T. JEFFERSON L. REV. 1, 8 (1997).

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[10] PEABODY, *supra*, at 882.

Each time, the well-intentioned physician started with the goal of reducing the barbarity of the previous method, and each time history later deemed that physician's method to be outdated and unfit for a humane society. *See* Joan M. LeGraw & Michael A. Grodin, *Health Professionals and Lethal Injection in the United States*, 24 HUMAN RIGHTS Q. 382, 396-97 (2002). If these attempts teach us nothing else, it is that the physician has no place in designing death when the purpose of the profession and the doctor's training is to preserve life.

Yet, states have attempted to "medicalize" executions by "intentionally mimic[king] medical procedure, thereby deceiving physicians who imagine a medically necessary role, and the public which imagines safe oversight." Joel B. Zivot, *Lethal Injection: States Medicalize Execution*, 49 U. RICH. L. REV. 711, 719 (2015).[11] States have ordered condemned prisoners to sign Do Not Resuscitate orders in anticipation of execution, and mandated the presence of doctors wearing white coats and stethoscopes to give an air of "seriousness and safety." *Id.* In order to sidestep this ethical crisis, states have passed safe harbor laws to shield physician participants who choose to violate professional ethics from state licensure boards or have determined that physicians who participate in

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[11] Dr. Zivot, who authored this law review article, is the same Dr. Zivot who examined Mr. Bucklew and prognosticated on his medical condition if he were to be executed under the present Missouri protocol.

executions are not practicing medicine. *Id.*[12] This Court has itself recognized the progression from colonial methods of killing to the modern trend of medicalized death, supposedly in the pursuit of humanity. *Baze*, 553 U.S. at 41-44 (plurality); *Glossip v. Gross*, 135 S. Ct. 2726, 2731-32 (2015).

A comparison between the plurality opinion in *Baze v. Rees*, 553 U.S. 35 (2008), and the concurrence of Justice Stevens in the same case may further illuminate this issue. The plurality recounts the history of methods of execution in the United States. *Id.* at 41-44. It characterizes that history as a persistent progression, guided by the latest scientific insights, toward an ever more humane and dignified method of extinguishing human life. *Id.* Eventually, the plurality notes, the vast majority of states have settled upon death by lethal injection, involving the use of three drugs: sodium thiopental (to anesthetize), pancuronium bromide (to paralyze), and potassium chloride (to stop the heart, in case the first two drugs failed to do the job). *Id.* at 44. It sums up this progression as follows:

> Our society has. . .steadily moved to more humane methods of carrying out capital

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[12] For a list of confidentiality laws by state *see* State by State Lethal Injection, DEATH PENALTY INFORMATION CENTER, https://goo.gl/ZxhVS7 (last visited Jul. 18, 2018). *See also N. Carolina Dep't of Correction v. N. Carolina Med. Bd.*, 675 S.E.2d 641, 651 (2009) (holding that North Carolina's execution protocol required physician involvement in execution, and that the state medical board exceeded its statutory authority when it threatened to enforce the ethical prohibition on physician participation in capital punishment).

> punishment. The firing squad, hanging, the electric chair, and the gas chamber have each in turn given way to more humane methods, culminating in today's consensus on lethal injection. The broad framework of the Eighth Amendment has accommodated this progress toward more humane methods of execution, and our approval of a particular method in the past has not precluded legislatures from taking the steps they deem appropriate, in light of new developments, to ensure humane capital punishment. There is no reason to suppose that today's decision will be any different.

553 U.S. at 62 (citation omitted).

In his concurrence, Justice Stevens saw the matter a bit differently. He suggested that the injection of pancuronium bromide *might* have the effect of hastening the execution, but it also *might* have the effect of allowing the prisoner to die in horrific agony. *Baze*, 553 U.S. at 71-77 (Stevens, J., concurring). The likelihood of either outcome cannot be known within any reasonable medical certainty. What is known, though, is that pancuronium bromide will prevent muscular twitching by the prisoner (whether dead or alive). The pancuronium bromide injection, then, will certainly preserve the executioner's own sense of dignity and humanity in carrying out the execution (and offer similar comfort to the society that has ordered the execution), but it might well have the opposite effect for the prisoner. As Dr. Zivot stated, "the dead can never tell us if they experienced cruelty in their death[;] the responsibility to guard against

cruelty is entirely in the hands of the observers." ZIVOT, *supra*, at 714.

Ultimately, the morality of capital punishment is a matter of personal judgment, beyond the pronouncements of the medical profession and of this Court. What is not beyond the AMA or this Court, though, is an objective, even-handed evaluation of the process, with a frank confession of what is knowable and what is not. As of November 2016, 31 states and the federal government authorized legal executions. *See* States With and Without the Death Penalty, DEATH PENALTY INFORMATION CENTER, https://goo.gl/ogXhC1 (last visited Jul. 18, 2018). With due respect, the AMA wonders how that number might change if the leaders of society, including the members of the judiciary, were less enthusiastic about labeling the changes to execution protocols as scientific improvements and were more discerning in their use of terms like "humane" and "dignified."

II. *Amicus* Takes No Position on the Substantive Issues, Including the Medical Questions that Underlie this Case.

The certified questions ask how the Eighth Amendment constrains the allowable method of execution for Mr. Bucklew, on account of his "rare and severe medical condition." Due to the prohibitions in the *AMA Code of Medical Ethics*, as discussed in this brief, the AMA is unable to provide guidance on that medical condition. Similarly, the AMA is unable to support either party or recommend how the Eighth Amendment should apply in this case.

CONCLUSION

Some, at least, of the certified questions in this case concern whether Mr. Bucklew has been able to prove, based on the idiosyncrasies of his own medical condition, which is the most legally suitable procedure for his own execution. In determining whether the prisoner has met his burden, the Court may choose to consider the consequences of the ethical prohibition against physicians' rendition of technical advice regarding the alternative possibilities for an execution. This brief, which is submitted on behalf of neither party, is intended only to provide background on the applicable ethical principles and to confirm, as noted *supra*, that Dr. Zivot is correct—testimony used to determine which method of execution would reduce physical suffering would constitute physician participation in capital punishment and would be unethical.

Respectfully submitted,

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No. 17-8151

IN THE

Supreme Court of the United States

RUSSELL BUCKLEW,

Petitioner,

v.

ANNE L. PRECYTHE, ET AL.,

Respondents.

On Writ of Certiorari to the United States Court of Appeals for the Eighth Circuit

BRIEF OF ARIZONA VOICE FOR CRIME VICTIMS, INC., AND MELISSA SANDERS AS *AMICI CURIAE* IN SUPPORT OF RESPONDENTS

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QUESTION PRESENTED

Whether Russell Bucklew's dilatory strategy of refusing to bring an as-applied challenge—which he was aware of for at least six years—until twelve days before his execution bars him from invoking equitable relief under 42 U.S.C. § 1983, especially considering the strong interest of his victims and their families in obtaining closure and an end to re-victimization through perpetual litigation.

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INTEREST OF AMICI CURIAE*

Arizona Voice for Crime Victims, Inc. (AVCV) is an Arizona nonprofit corporation that works to promote and protect crime victims' interests throughout the criminal justice process. To achieve these goals, AVCV empowers victims of crime through legal advocacy and social services. AVCV also provides continuing legal education to the judiciary, lawyers, and law enforcement.

A key part of AVCV's mission is giving the judiciary information and policy insights that may be helpful in the difficult task of balancing an accused's constitutional rights with crime victims' rights, while also protecting the wider community's need for deterrence.

Melissa Sanders is the sister of Michael Sanders, who was murdered by Russell Bucklew in 1996. After Michael's murder, Melissa and her husband took care of Michael's two young sons, John Michael and Zach, and she has served as the principal contact for the Sanders family regarding the prosecution of Russell Bucklew. She has an interest in seeing justice carried out for her brother Michael and in attaining closure for his other family members.

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* Pursuant to Supreme Court Rule 37.6, *amici* represents that this brief was not authored in whole or in part by any party or counsel for any party. No person or party other than *amici*, its members, or its counsel made a monetary contribution to the preparation or submission of this brief. All parties have filed blanket consents to the filing of *amicus curiae* briefs in accord with Supreme Court Rule 37.3.

STATEMENT

In 1996, Russell Bucklew brutally murdered Michael Sanders as his two young sons—only four and six years old—watched their father bleed to death in front of them. Then, as the young daughters of Bucklew's other victim, Stephanie Ray, cried and wailed for their mother, Bucklew handcuffed and dragged her away to endure hours of rape and torture. Bucklew's reign of terror continued when he broke out of jail, forced victims to go into hiding, and ambushed one victim's mother in her own home. He was tried, convicted, and sentenced to death over 20 years ago.

Bucklew's violent crimes exacted ân unspeakably cruel toll on his victims and their families. But that was just the beginning of their suffering. Bucklew has pursued a manipulative, dilatory litigation strategy that has robbed his surviving victims of even the smallest measure of closure and peace.

1. Stephanie Ray first met Russell Bucklew in mid-1995. Scott Moyers, *Penalty of Death, Part 2*, SOUTHEAST MISSOURIAN (March 21, 2011), available at https://tinyurl.com/y7ovn2wk; see also *Bucklew* v. *Luebbers*, 436 F.3d 1010, 1013 (8th Cir. 2006). At twenty-one years old, she was looking for someone who could help her look after her two young girls, and at first, she thought she might have found that someone in Bucklew. Moyers, *Penalty of Death, Part 2*; see also Scott Moyers, *Penalty of Death, Part 1*, SOUTHEAST MISSOURIAN (March 20, 2011), available at https://tinyurl.com/yav2c22g (Ray was "all of 21" in March of 1996). He helped her change the girls' diapers, got them toys, and looked after them while she was working at her job at a pottery company. Moyers, *Penalty of Death, Part 2*.

After a few months, he moved in with her and her daughters in a trailer in southeastern Missouri. She had to provide for him—he used the benign tumors in his mouth as an excuse not to work—but their relationship nevertheless seemed to be making progress. *Ibid.* She was apparently unaware of his "extensive criminal history, including prior convictions for trespass, assault, burglary, stealing, driving while intoxicated, possession of marijuana, grand theft, [and] assaulting past girlfriends." 436 F.3d at 1014.

But Bucklew could not maintain the façade forever, and by February 1996, Stephanie was ready to move on. They often fought, his refusal to work was wearing on her, and, on top of it all, she was devastated by the loss of her baby early that year. By Valentine's Day, she told him they were done, and kicked him out of her trailer. Moyers, *Penalty of Death, Part 2*; *State* v. *Bucklew*, 973 S.W.2d 83, 86 (Mo. 1998).

2. Bucklew, however, was far from done. A few weeks later, he walked into Stephanie's trailer unannounced. She was not there, but Michael Sanders, her co-worker and friend, was. Bucklew grabbed a kitchen knife, put it to Michael's throat, and said, "get the hell out of my house or I'm going to kill you." Moyers, *Penalty of Death, Part 2*; 973 S.W.2d at 86. Bucklew let Michael leave when he explained he was just friends with Stephanie and there to pick up his guitar—he had been teaching her how to play.

Bucklew returned to the trailer that evening and waited for Stephanie. When she returned from work, he burst out from behind the door, pulled her to the ground, dragged her to the back bedroom, pinned her to the bed, and put a knife to her throat. *Ibid.* He cut

her jaw, punched her in the face—and then, miraculously, left. 436 F.3d at 1013.

3. But Bucklew's campaign of terror was just beginning. The next day, he called Stephanie at work and vowed to kill her and her children: "If I ever see you around that guy again, I will kill you and the kids. I will cut them up in front of you." Moyers, *Penalty of Death, Part 2*; 973 S.W.2d at 92-93. Stephanie was terrified, but determined to protect her daughters. She called the police, and got an order of protection requiring Bucklew to stay away from them. Moyers, *Penalty of Death, Part 2*; 973 S.W.2d at 86. But she knew that was not enough—he was sure to come to their trailer, order or no. That night, she took her children to her mother's. Moyers, *Penalty of Death, Part 2*. The next day, Stephanie and her daughters moved in with Michael and his two young sons. 436 F.3d at 1013.

4. But there would be no peace for Stephanie, Michael, or their children. On the night of March 20, 1996, "Bucklew stole his nephew's car and left with two pistols, two sets of handcuffs, and a roll of duct tape." *Ibid*. He stalked Stephanie throughout the day—watching her as she left work, ran errands, and eventually returned to Michael's trailer. *Ibid*. Inside the trailer were Stephanie's daughters and Michael's sons: John Michael Sanders (age six) and his brother Zach (age four). The two boys played in the living room as their father and Stephanie spoke in the bedroom. Moyers, *Penalty of Death, Part 1*.

After briefly waiting outside, Bucklew approached Michael's trailer and knocked on the front door. Hearing the knock, six-year-old John Michael unlocked the door. *Ibid*. Bucklew burst into the house "with a pistol in each hand" but before he could hurt

the children, Michael appeared and shoved them down the hall. 973 S.W.2d at 86; Moyers, *Penalty of Death, Part 1*. But that was all he could do. Bucklew "yelled 'get down' and without further warning began shooting at [Michael]." 973 S.W.2d at 86.

Slumped against the wall, his lung shredded by a bullet, Michael tried to pacify his killer, pleading, "I'm cool, man. I'm down." *Ibid.*; Moyers, *Penalty of Death, Part 1*. Unsatisfied, Bucklew "aimed the gun at [Michael's] head"—but was distracted by another target. 973 S.W.2d at 86. "[W]hen he saw [Michael's] six-year-old son," Bucklew "fired at the boy instead." *Ibid.* Bucklew later bragged that he thought he'd killed the first-grader, Moyers, *Penalty of Death, Part 2*—but fortunately, the shot missed. 973 S.W.2d at 86.

As Michael lay dying, Stephanie stepped forward to protect him, standing between him and his killer. *Ibid.* Bucklew demanded that she drop to her knees—and when she refused, he "pistol-whipped [Stephanie], breaking her jaw, and knocking her to the kitchen floor in a semi-coherent condition." *Id.* at 91. He handcuffed Stephanie, dragged her into the stolen car, and kidnapped her "from [Michael's] trailer as her children cried." *Ibid.*

Over the next five hours, Bucklew brutally raped Stephanie multiple times. Later, "when she did not perform every act [Bucklew] demanded," *Bucklew* v. *State*, 38 S.W.3d 395, 397 (Mo. banc 2001), he "took her to a secluded spot and put a gun to her head and raped her while her hands were taped in front of her body," 973 S.W.2d at 91. After subjecting Stephanie to hours of torture, Bucklew was finally apprehended when the highway patrol cornered him—but even then they first had to defeat him in a gun battle. 38

S.W.3d at 397. Bucklew told Stephanie that he "would take as many police officers with him as he could in a shootout," 973 S.W.2d at 93—and although no officers were killed, one was wounded—and before Bucklew was arrested, he fired a round into Stephanie's leg. Scott Moyers, *Penalty of Death, Part 3*, SOUTHEAST MISSOURIAN (March 22, 2011), *available at* https://tinyurl.com/ybsz7t3b.

By the time Bucklew was apprehended, Michael had bled to death. 973 S.W.2d at 87; 436 F.3d at 1014.

5. Even after all this, Bucklew was not done tormenting his victims. While awaiting trial for murder, Bucklew claimed his condition interfered with his eating, allowing him to excuse his otherwise-alarming 15-pound weight loss—which helped him fit into a trash bag that an accomplice tossed into an outgoing bin. Moyers, *Penalty of Death, Part 3*. As soon as Bucklew's escape was discovered, Stephanie and her daughters were placed in protective custody, and her mother, Barbara, stayed at a hotel with her boyfriend Ed Frenzel. *Ibid.*

After two days at the hotel, Barbara and Ed returned home—with a police escort—to collect a few belongings. *Ibid.* After their escort swept the home and gave the all clear, they spent an hour or so tidying up, until Barbara went to check the lock on the back door. As she turned to walk back to the living room, Bucklew burst out of a closet and ambushed her. 436 F.3d at 1014; Moyers, *Penalty of Death, Part 3*. Screaming "[y]ou're going to die," Bucklew attacked the couple with a knife and hammer, but they managed to escape their home with their lives. Moyers, *Penalty of Death, Part 3*.

6. Bucklew was eventually recaptured and convicted in state court of murder, kidnapping, and

rape. He was sentenced to death, and the Missouri Supreme Court affirmed his sentence on direct appeal. 973 S.W.2d 83. Bucklew's state and federal habeas petitions were denied as well. See 38 S.W.3d 395; 436 F.3d 1010.

7. With normal avenues of review exhausted, Bucklew adopted a new strategy to avoid the execution of his sentence—bring a facial challenge to Missouri's lethal injection protocol under 42 U.S.C. § 1983, but keep an as-applied challenge (based on his benign oral tumors) in reserve, ready to use when most strategically advantageous.

Having exploited his condition to escape from jail over a decade before, Bucklew was well aware of his symptoms—and that they might provide some basis for an as-applied challenge. In June 2008, Bucklew filed a pleading asking for $7,200 to hire a medical expert to support a clemency application—and supported his request by claiming that, because of his condition, "execution by lethal injection may pose a substantial and intolerable risk of inflicting serious harm and excruciating pain." Resp. App. at 798a. His 2008 filing included extensive argument that "Bucklew will suffer the risk of serious harm amounting to cruel and unusual punishment during the administration of Missouri's lethal injection protocol in light of his affliction with cavernous hemangioma." *Id.* at 796a. It even stated that Bucklew sought to demonstrate that Missouri's procedure was unconstitutional "*as applied uniquely to Mr. Bucklew.*" *Id.* at 797a (emphasis in original).

Yet despite his obvious awareness of a possible as-applied challenge based on his condition, Bucklew refused for years to bring such a challenge. Instead, he brought or joined a series of facial challenges—

always ensuring that his as-applied challenge was at the ready for later use.

Bucklew first attempted to intervene in a pending facial challenge to Missouri's injection procedure in July 2008, when he moved to intervene in *Clemons* v. *Crawford*, 2:07-CV-04129 (W.D. Mo.). Just two weeks earlier, the Missouri Supreme Court denied his motion to reconsider its previous order granting the State's motion to set execution dates "in due course." Dkt. 78 at 3, *Clemons* v. *Crawford*, 2:07-CV-04129 (W.D. Mo.). To postpone execution, Bucklew moved to intervene in the federal case—arguing, repeatedly, that he was identically situated to the other plaintiffs (none of whom had his condition). See *id.* at 8, ("Timeliness is no objection to the intervention of a person who fits the model of the other plaintiffs to the extent that [Bucklew] does"); *ibid.* ("the risks of severe pain that [Bucklew] faces are the same as those that plaintiffs face"); *id.* at 9 ("By virtue of their common stake in a positive outcome, Mr. Bucklew's interests are bound up with those of the four [plaintiffs]"); *ibid.* (claiming Bucklew would "adopt by reference" any pleadings filed by the other plaintiffs).

After Bucklew's attempt at intervention was denied, *Clemons* v. *Crawford*, 585 F.3d 1119, 1129 (8th Cir. 2009), he joined a different challenge claiming Missouri's protocol was preempted by the Federal Controlled Substances Act and the Federal Food, Drug & Cosmetic Act. Dkt. 6, *Ringo* v. *Lombardi*, 2:09-CV-04095 (W.D. Mo.). That action was dismissed as moot when Missouri was no longer able to procure the drugs necessary to implement its protocol—and, up through the end of the case, Bucklew gave no indication that his position varied

from any other plaintiff on death row. See *Ringo* v. *Lombardi*, 677 F.3d 793, 797 (8th Cir. 2012).

A few months after that action was dismissed, Bucklew joined another group of death-row plaintiffs in a facial Eighth Amendment challenge to the new drug protocol—arguing that Missouri's 2012 protocol posed "an objectively intolerable risk of severe pain" for *any* capital defendant. Dkt. 1-2 at 13, *In re Lombardi*, 2:12-cv-04209 (W.D. Mo.). After Missouri implemented the current pentobarbital protocol in October 2013, Bucklew joined an amended complaint challenging that protocol—again on facial grounds, and without any suggestion that it might be uniquely unconstitutional as applied to him. Dkt. 183, *In re Lombardi*, 2:12-cv-04209 (W.D. Mo.).

The district court in that case issued a discovery order requiring that the identities of the physician, pharmacist, and laboratory involved in prescribing and procuring the pentobarbital be disclosed—and the Eighth Circuit vacated the order, effectively holding that the facial challenge was meritless given the failure to identify an alternative means of execution. *In re Lombardi*, 741 F.3d 888, 895 (8th Cir. 2014). On remand, Bucklew—along with the other plaintiffs—refused to plead a feasible alternative, and their Eighth Amendment claims were dismissed. Dkt. 443, *In re Lombardi*, 2:12-cv-04209 (W.D. Mo.).

8. On May 9, 2014, less than two weeks before his scheduled execution, Bucklew *finally* brought his as-applied challenge. App. at 1; *Bucklew* v. *Lombardi*, 783 F.3d 1120, 1122 (8th Cir. 2015). Having held that challenge in reserve for years, Bucklew was able to secure a stay of execution from this Court while Missouri's other capital defendants could not, see 783 F.3d at 1123–24, and he staved off dismissal of his

new as-applied claims despite the dismissal of the other defendants' facial challenges. *Id.* at 1129.

Even while litigating this "new" claim, Bucklew was careful to preserve as many opportunities for future litigation as possible. Required to plead an "alternative" execution method, Bucklew vaguely argued that "lethal gas" could be a comparatively less painful option. *Bucklew* v. *Precythe*, 883 F.3d 1087, 1094 (8th Cir. 2018). But Bucklew was also careful to preserve his ability to argue against the use of gas, should it ever somehow become available.[1] On one hand, Bucklew argued that the State could not affirmatively *disprove* the viability of lethal gas at summary judgment—while on the other hand, he ensured that his own expert did not actually endorse lethal gas as an alternative method. *Id.* at 1094–95. If lethal gas ever does become available, Bucklew will assuredly point to his own expert's testimony to argue that lethal gas is unconstitutional as applied to him.

9. The district court and the court of appeals saw through Bucklew's strategy and held that, even after "extensive discovery," he had not made any real effort to discern what procedures would actually be used at his execution—and thus could not show that any such procedures would be more painful than his "lethal gas" alternative. 883 F.3d at 1096 ("Bucklew simply asserts that, in comparing execution by lethal injection and by lethal gas, we must accept his speculation that defendants will employ these risk-increasing procedures."). As the Eighth Circuit noted,

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[1] Of course, even if Bucklew had conceded the constitutionality of lethal gas, it is unlikely that such a concession would ever have any practical effect on him given that Missouri has not used gas for executions since 1965, and its only gas chamber sits in a museum. *Ibid*; App. at 487.

Bucklew successfully prolonged his as-applied challenge in 2015 by arguing for the necessity of further fact-finding—and then showed no interest in that fact-finding once his challenge was revived. *Id.* at 1095.

Specifically, three years before, Bucklew argued that the Eighth Circuit should reverse the dismissal of his complaint to allow him to take further discovery regarding what changes the State could make to its protocol to accommodate his condition—because without knowing the exact parameters of the protocol, Bucklew could not effectively argue against them. *Id.* at 1095. But once Bucklew secured reversal and remand, he stopped caring about what changes Missouri would make to its procedures, and did nothing to determine what, exactly, the effects of those procedures would be with respect to his condition. *Id.* at 1096. The district court ruled for the State and the Eighth Circuit affirmed. *Id.* at 1097.

ARGUMENT

I. Decades-Long Delays In Obtaining Justice Inflict Immeasurable Harm On Victims' Families.

For more than two decades, the pain and grief suffered by Michael Sanders' family—including his two boys who watched their father die at Bucklew's hands—has been compounded by the interminable delays in executing Bucklew's sentence. Although there is no doubt that Bucklew murdered Michael Sanders—and assaulted, kidnapped, and raped Stephanie Ray—their families continue to await justice and closure. And they are not alone. Across the Nation, victims suffer immeasurable harm from

decades-long delays in executing sentences—delays that rob victims' families of even a modicum of peace and closure.

A. The Family Members Of Bucklew's Victims Continue To Be Victimized By His Dilatory And Manipulative Litigation Tactics.

The suffering of Michael Sanders' family has been relentlessly exacerbated by decades of undue delays and manipulative litigation tactics.

John Michael Sanders still remembers rushing to his father's motionless body after Bucklew shot him and abducted Stephanie. Moyers, *Penalty of Death, Part 1*, *supra*. He remembers his father struggling to speak to him before dying of his wounds. And he often replays that day in his head, blaming himself—then all of six years old—for unlocking the door when Bucklew knocked. "I thought if I hadn't unlocked the door, he wouldn't have been able to kick it open," he remarked in a 2011 news article. *Ibid.* "There could have been a different ending," he mused—one where his father's murder, Stephanie's abduction, and Bucklew's escape never happened. Sometimes, John Michael dreams that his father gets to watch him and his brother grow up, graduate high school, and begin happy lives for themselves. *Ibid.* "I dream that because I guess there's a part of me that still wants to believe that," he says. John Michael believes that Bucklew deserves the death penalty and that Bucklew's execution will grant him closure. Until then, he finds it difficult to fully move on. *Ibid.*

Zach, John Michael's younger brother, has had similar difficulties dealing with his father's brutal murder while Bucklew indefinitely prolongs this

litigation and delays the execution of his sentence. Zach—whose first memory is his father's murder—"has suffered through nights of fitful sleep, bad dreams and occasionally has awakened, crying." *Ibid.* Like John Michael, Zach believes that Bucklew's execution will help him fully come to terms with what has happened. Both brothers have expressed their willingness to attend the execution, and finally experience some closure and finality. *Ibid.*

Michael Sanders' father, Jerry, his mother Dorothy, and his sister, *amicus* Melissa Sanders—who helped raise John Michael and Zach—have also borne the pain of undue delays which have taken a great toll on their lives and denied them peace. "I'm angry about it. Yeah, you bet," Jerry Sanders told a reporter. "It's gotten to where I deal with it easier, but to see [Bucklew] go would give me peace of mind. It would put me to rest. I really think it would." Scott Moyers, *Penalty of Death, Part 4*, Southeast Missourian (March 23, 2011), *available at* https://tinyurl.com/y7asb8bw. Michael's sister Melissa agrees that Bucklew's sentence should have been carried out years ago. *Ibid.* But over 20 years after Bucklew was sentenced to death, they are still waiting for justice and closure.

B. Research Confirms What The Experience of Victims Makes Plain—Undue Delays in the Administration of Justice Harm Victims of Violent Crimes.

Not surprisingly, the academic literature confirms what the experiences of families like the Sanders makes painfully clear—long after the immediate loss and physical trauma are over, crime victims and their

loved ones continue to suffer from psychological wounds that refuse to heal. Courts frequently overlook the ways in which delayed proceedings compound that harm and exacerbate the initial injuries victims suffer.

It is well known, of course, that violent crime inflicts various immediate psychological traumas on victims and those close to them. Most obviously, Post-Traumatic Stress Disorder (PTSD) is commonly documented among the victims of violent crime. See Jim Parsons & Tiffany Bergin, *The Impact of Criminal Justice Involvement on Victims' Mental Health*, 23 J. Traum. Stress 182, 182 (2010); Dean G. Kilpatrick & Ron Acierno, *Mental Health Needs of Crime Victims: Epidemiology and Outcomes*, 16 J. Traum. Stress 119, 119 (2003). PTSD can afflict not only the direct victims of violent crime, but also those who experience its profound repercussions more indirectly, such as family members and friends. Kilpatrick & Acierno, *Mental Health Needs of Crime Victims: Epidemiology and Outcomes*, 16 J. Traum. Stress at 125–27 (2003).

PTSD is far from the only wound that violent crime can inflict on victims. Depression, substance abuse, panic disorder, agoraphobia, social phobia, obsessive-compulsive disorder, and suicide also number among them. Parsons & Bergin, *The Impact of Criminal Justice Involvement on Victims' Mental Health*, 23 J. Traum. Stress at 182. All of these injuries are compounded when the adjudicative process is subject to dilatory maneuvering and gamesmanship.

Of course, from the victim's perspective, proceedings rarely move quickly enough—"trial is typically delayed through scheduling conflicts,

continuances, and other unexpected delays throughout the course of the trial." Mary Beth Ricke, *Victims' Right to a Speedy Trial: Shortcomings, Improvements, and Alternatives to Legislative Protection*, 41 Wash. U. J. L. & Pol'y 181, 183 (2013). "Victims of the crimes are already heightened emotionally with anxiety and anticipation of the impending trial, and these delays lead to further and unnecessary trauma." *Ibid.* It thus is not surprising that "multiple studies" demonstrate "the negative effect on a victim's healing process when there is a prolonged trial of the alleged attacker because the actual judicial process is a burden on the victim." *Id.* at 193; Ulrich Orth & Andreas Maercker, *Do Trials of Perpetrators Retraumatize Victims?*, 19 J. Interpersonal Violence 212, 215 (2004). "The years of delay exact an enormous physical, emotional, and financial toll" on victims. Dan S. Levey, *Balancing the Scales of Justice*, 89 Judicature 289, 291 (2006); see also Samuel R. Gross & Daniel J. Matheson, *What They Say at the End: Capital Victims' Families and the Press*, 88 Cornell L. Rev. 486, 492 (2003) ("Ending this painful process can become a major goal for the victim's family-- sometimes the only realizable goal of the execution.").

Abundant academic literature thus confirms what common sense and experience make plain. A victim's experience with the criminal justice system—particularly when the process is long-delayed, convoluted, and seemingly never-ending—compounds the initial effects of violent crime. See Ricke, *Victims' Right*, 41 Wash. U. J. L. & Pol'y at 182-183; see also Judith Lewis Herman, *The Mental Health of Crime Victims: Impact of Legal Intervention*, 16 J. Traum. Stress 159, 159 (2003). A victim's experience with the criminal justice system often "means the difference

between a healing experience and one that exacerbates the initial trauma." Parsons & Bergin, *The Impact of Criminal Justice Involvement on Victims' Mental Health*, 23 J. Traum. Stress at 182.

The harm caused by drawn-out criminal justice proceedings is especially acute in cases involving capital punishment, such as this one, which often involve decades of delay and false stops and starts before the case is finally over. Delay in death penalty cases means that "[c]hildren who were infants when their loved ones were murdered are now, as adults, still dealing with the complexities of the criminal justice system." Levey, *Balancing the Scales of Justice*, 89 Judicature at 290.

"The automatic appeals, and often repeated appeals," in death penalty cases "are continually brutal on victim family members." *Ibid.* "Year after year, survivors summon the strength to go to court, schedule time off work, and relive the murder of their loved ones over and over again . . . . The years of delay exact an enormous physical, emotional, and financial toll." *Id.* at 290–91. The delays also keep family members from experiencing a sense of "closure"—the "hope that they will be able to put the murder behind them." Gross & Matheson, *What They Say at the End*, 88 Cornell L. Rev. at 489, 490-94.

II. Bucklew's Manipulative And Dilatory Suit—Based On A Claim He Refused To Bring For Years—Exemplifies The Toll Exacted On Victims Of Violent Crime As They Wait For Justice And Closure.

The Eighth Circuit properly put an end to Bucklew's decades-long abusive litigation, strategic posturing, and dilatory tactics—and its judgment

should be affirmed. For as long as this Court has recognized § 1983 method-of-execution claims, it has also recognized the potential for their abuse. See, e.g., *Gomez* v. *U.S. Dist. Court for N. Dist. of California*, 503 U.S. 653, 654 (1992) (per curiam) (rejecting method-of-execution challenge and explaining that "[e]quity must take into consideration the State's strong interest in proceeding with its judgment and Harris' obvious attempt at manipulation."). And this Court has held that "[b]oth the State and the victims of crime have an important interest in the timely enforcement of a sentence" that should be protected by dismissing abusive § 1983 suits. *Hill* v. *McDonough*, 547 U.S. 573, 584 (2006) (citing *Gomez*).

In *Hill*, this Court held that capital defendants could sometimes step outside the habeas framework and use § 1983 to challenge the method of their planned execution. *Id.* at 583. At the same time, the Court recognized the obvious potential for abuse in using § 1983 as a procedural vehicle given that, among other things, such suits are not subject to the bar on successive habeas petitions—and warned that repetitive, dilatory, and strategic § 1983 suits should not be allowed to trump the interest of victims. *Id.* at 584. The Court explained that its decisions upholding § 1983 method-of-execution suits "do not diminish that interest, nor do they deprive federal courts of the means to protect it." *Ibid.* This is so, in part, because "the 'last-minute nature of an application' or an applicant's 'attempt at manipulation' of the judicial process may be grounds for denial of a stay" or other relief. *Ibid.* (quoting *Gomez*, 503 U.S. at 654).

Although *Hill* was most directly concerned with stay applications, it approvingly cited cases that applied the same reasoning to dismiss outright

"[r]epetitive or piecemeal" § 1983 claims. *Id.* at 584–85 (noting courts' use of their equitable authority "to dismiss suits they saw as speculative or filed too late in the day" as an example of how "dilatory or speculative suits" could be addressed); *id.* at 584 (citing *White* v. *Johnson*, 429 F.3d 572, 574 (5th Cir. 2005), which dismissed a § 1983 action because the claimant "has been on death row for more than six years, and only now, with his execution imminent, has decided to challenge a procedure for lethal injection that the State has been using for his entire stay on death row").

It is difficult to imagine a more appropriate case for exercising equitable authority to protect crime victims against repeated manipulation of the judicial process than this one. Bucklew refused to make his as-applied challenge until the last moment—a mere 12 days before his execution—despite his awareness of the availability of such a challenge *at least* 6 years earlier. See *White*, 429 F.3d at 574 (dismissing § 1983 method-of-execution challenge where the claimant was aware of its availability "for more than six years" and only brought it "with his execution imminent"). Despite virtually unlimited opportunities to bring (and have resolved) any as-applied claims during that six-year period, Bucklew chose not to do so. Even after he was finally forced to bring his claim, he has been careful to avoid any real merits determination—arguing that a lethal gas procedure Missouri has not used for 50 years could *possibly* be constitutional, while offering the testimony of an expert who claims that no procedure whatsoever, gas or otherwise, could be satisfactory.

Unless the judgment below is affirmed, Bucklew will continue to bring suit after suit for no purpose

other than drawing out these proceedings and dragging his victims through as many years of litigation as he possibly can. The "important interest" of crime victims that this Court recognized in *Hill* should be vindicated here by holding that the equities lie with the victims who have been denied peace and closure for over two decades—and affirming the judgment below on that ground.

CONCLUSION

For the foregoing reasons, the judgment below should be affirmed.

Respectfully submitted.

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IN THE

Supreme Court of the United States

RUSSELL BUCKLEW,

Petitioner,

v.

ANNE L. PRECYTHE, DIRECTOR, MISSOURI DEPARTMENT OF CORRECTIONS, ET AL.,

Respondents.

On Writ of Certiorari
to the United States Court of Appeals
for the Eighth Circuit

BRIEF FOR THE ASSOCIATION FOR ACCESSIBLE MEDICINES AS *AMICUS CURIAE* IN SUPPORT OF NEITHER PARTY

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INTEREST OF THE *AMICUS CURIAE*[1]

The Association for Accessible Medicines ("AAM") is a nonprofit, voluntary association representing manufacturers and distributors of generic and biosimilar medicines, active pharmaceutical ingredients, as well as suppliers of other goods and services to the generic and biosimilar pharmaceutical industry. AAM's members provide patients with access to generic and biosimilar medicines that are as safe and effective as their brand-name counterparts at a substantially more affordable price. Generic drugs now constitute 90% of all prescriptions dispensed in the United States, yet they account for only 23% of total drug spending. Over the last decade, generic and biosimilar drugs have generated $1.68 trillion in savings for patients and taxpayers. AAM's core mission is to improve the lives of consumers by providing access to affordable medicines used for therapeutic purposes. To further that mission, AAM regularly participates in litigation as an *amicus curiae*.

This case concerns an as-applied challenge to the State of Missouri's use of a lethal injection protocol featuring the drug pentobarbital. AAM takes no position on the propriety of capital punishment. But AAM and its members strongly oppose the use of their medicines—which are researched and developed to enhance patient health—to carry out executions. Indeed, many pharmaceutical companies, including numerous AAM

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[1] Pursuant to Rule 37.6, *amicus* affirms that no counsel for a party authored any part of this brief, and that no person other than *amicus*, its members, or its counsel made a monetary contribution intended to fund its preparation or submission. All parties have filed blanket consents to the filing of *amicus curiae* briefs.

members, prohibit the sale of their products for the purpose of lethal injection, either directly or indirectly through distributors.[2] These AAM members recognize that the diversion of their medicines for use in execution protocols is contrary to their business interests as well as their ethical duties.

Using drug products for lethal injection is inconsistent with the rigorous process for studying and approving prescription drugs in this country, as administered by the U.S. Food and Drug Administration ("FDA"). The drugs that are used for lethal injection—such as sedatives, anticonvulsants, barbiturates, muscle relaxants, and potassium supplements—are approved to treat or aid in the treatment of particular health conditions. The off-label use of those drugs to kill rather than to heal is a perversion of their therapeutic purpose, which AAM firmly opposes.

SUMMARY OF ARGUMENT

Drug manufacturers overwhelmingly oppose the use of their products for lethal injections. And for good reason. FDA-approved drugs are studied and labeled for the treatment of specific illnesses and conditions. As part of the initial approval process, pharmaceutical products are rigorously tested to ensure that they are safe and effective for particular indications. Unsurprisingly, no prescription drug has been tested (or approved by regulators) at the very high doses typically employed in an execution protocol.

Nor is lethal injection a medically accepted off-label use of the powerful injectable drugs used as part of execution protocols. Responsible off-label prescribing of a

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[2] *See* Lethal Injection Information Center, *Industry Statements*, http://lethalinjectioninfo.org/industry-statements/.

drug requires empirical testing and scientific proof that the drug is safe and effective for treating a particular condition. And the prescription must be informed by sound medical judgment to consider how a patient's individual characteristics might affect the drug's safety and efficacy. Neither requirement is satisfied when drugs are used for capital punishment. We are not aware of any adequate or well-controlled scientific study that has been conducted on the safety and efficacy of injectable drugs when used as part of an execution protocol. Moreover, lethal injections often take place without adequate medical supervision, since many doctors and other primary care providers believe that participating in capital punishment would violate their ethical obligations. Indeed, that is the position taken by the leading professional organizations, including the American Medical Association and the American Society of Anesthesiologists.

Like doctors and other medical professionals, many drug manufacturers (including the members of AAM) recognize that they have an ethical obligation to ensure that their products are used only to heal, not to harm. Yet despite many manufacturers' best efforts, drugs that are essential to the healthcare system—including some that are in short supply—have been diverted to state prison systems for use in capital punishment. AAM and its members cannot support such misuse of their products.

ARGUMENT

I. The Use Of Prescription Drugs In Executions Is Inconsistent With The Premises Underlying FDA Review Of Such Drugs.

Drug regulation in the United States is built on FDA's "rigorous evaluation process, which scrutinizes everything about [a] drug" before it can be released into the market.[3] Under the Federal Food, Drug, and Cosmetic Act, ch. 675, 52 Stat. 1040, as amended 21 U.S.C. § 301 *et seq.*, drug manufacturers must gain approval from FDA before marketing a prescription drug in interstate commerce. *See Mut. Pharm. Co. v. Bartlett*, 570 U.S. 472, 476 (2013) (citing 21 U.S.C. § 355(a)). By statute, drugs must be dispensed by prescription when they are of sufficiently high risk that they are "not safe for use except" under appropriate medical supervision. 21 U.S.C. § 353(b)(1). As part of FDA-approval process, the manufacturer filing a new drug application ("NDA") must put forward evidence from "investigations which have been made to show whether or not such drug is safe for use and whether such drug is effective in use." *Id.* § 355(b)(1).

In their applications to FDA, drug manufacturers seeking approval of a new product pursuant to a NDA must submit labeling that specifies the drug's intended use. 21 U.S.C. § 355(b)(1)(F). And the clinical studies conducted to secure approval must establish the drug's safety and efficacy for that designated use. Thus, applicants must submit "[s]tudies of the pharmacological actions of the drug in relation to its proposed therapeu-

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[3] FDA, *The FDA's Drug Review Process* (Nov. 24, 2017), https://www.fda.gov/drugs/resourcesforyou/consumers/ucm143534.htm.

tic indication," "[s]tudies of the toxicological effects of the drug as they relate to the drug's intended clinical uses," and "studies of toxicities related to the drug's particular mode of administration or conditions of use." 21 C.F.R. § 314.50(d)(2)(i)-(ii).

Generic drug manufacturers, in turn, are permitted to rely on those studies of safety and efficacy to receive FDA approval by establishing that the generic drug is the same as the brand-name drug in all material respects, including that the generic drug will be used for the same indication and has the same dosage, strength, and method of administration as a previously approved drug. 21 U.S.C. § 355(j)(2)(A)(i)-(iv). Any change to the active ingredient, the route of administration, dosage form, or strength may require additional testing for safety and efficacy. *Id.* § 355(j)(2)(C).

Taken as a whole, the FDCA and FDA regulations are designed "to ensure that any product regulated by the FDA is 'safe' and 'effective' for its intended use." *FDA v. Brown & Williamson Tobacco Corp.*, 529 U.S. 120, 133 (2000).

A. The Prescription Drugs Used For Lethal Injection Have Not Been Designed, Tested, Or Approved To Carry Out Executions.

FDA does not approve drugs for use in capital punishment, and manufacturers do not study how these drugs will function in that unusual setting. Consider, for example, the approved uses of several drugs that states often use in executions.

- Pentobarbital—the drug Respondents intend to use to execute Petitioner—is a barbiturate drug indicated as a sedative, a short-term treatment

for insomnia, a pre-anesthetic, and an emergency treatment for "certain acute convulsive episodes," such as those associated with eclampsia, tetanus, or meningitis.[4]

- Midazolam, the injectable drug at issue in *Glossip v. Gloss*, 135 S. Ct. 2726 (2015), is also a sedative (although not a barbiturate), and is often used continuously during surgery.[5]
- Muscle relaxants, such as pancuronium bromide, are used in conjunction with general anesthesia—particularly to facilitate tracheal intubation, which prevents a patient from asphyxiating and allows for continuous breathing.[6]
- Potassium-based injectable drugs, such as potassium chloride, are used to treat potassium deficiency in controlled settings; medical supervision is important to prevent hyperkalemia,

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[4] *See* U.S. Nat'l Library of Med., *Pentobarbital Sodium* (Sagent Pharm.), NDC Codes 25021-676-20, 25021-676-50, https://dailymed.nlm.nih.gov/dailymed/drugInfo.cfm?setid =e9f4b344-b092-4eec-b49d-d8cfe8ebc05d.

[5] *See* Br. of Sixteen Professors of Pharmacology as Amicus Curiae in Support of Neither Party at 10-11, *Glossip v. Gloss*, No. 14-7955, at 10-11 (U.S. filed Mar. 16, 2015) ("Benzodiazepines [such as midazolam] are CNS depressants that reliably provide sedative, hypnotic, muscle relaxant, anxiety inhibitory, and anticonvulsant effects.").

[6] *See* U.S. Nat'l Library of Med., *Pancuronium Bromide* (Hospira, Inc.), NDC Code 0409-4646-01, https://dailymed.nlm.nih.gov/dailymed/drugInfo.cfm?setid=d705382b-8aa0-4893-ed9ebcf7c7d9d0a2.

which can cause cardiac arrhythmia and, eventually, cardiac arrest.[7]

In the hands of corrections officials, however, these drugs are not used for their indicated or other medically appropriate purposes. Far from it. For example, instead of using pentobarbital as a sedative and an anticonvulsant, corrections officials use the drug to stop a prisoner from breathing and to stop his or her heart. Pet. App. 11a.

Likewise, corrections officials use midazolam as the single anesthetic in a three-drug protocol, even though it has never been studied, recommended, or approved for use as a sole anesthetic, much less as an anesthetic used to facilitate death. *See Glossip*, 135 S. Ct. at 2742; *id.* at 2783 (Sotomayor, J., dissenting) (noting that midazolam "is not approved by the [FDA] for use as, and is not in fact used as, a sole drug to produce and maintain anesthesia in surgical proceedings" (quotation marks omitted)); *Arthur v. Dunn* 137 S. Ct. 725, 726 (2017) (Sotomayor, J., dissenting) ("Although it can be used to render individuals unconscious, midazolam is not used on its own to *maintain* anesthesia . . . in surgical procedures, and indeed, the [FDA] has not approved the drug for this purpose.").

Pancuronium bromide, in turn, is used by corrections officials to stop prisoners from breathing entirely—a significant departure from its approved use to paralyze the breathing muscles merely so that a pa-

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[7] *See* U.S. Nat'l Library of Med., *Potassium Chloride* (Baxter Healthcare Corp.), NDC Codes 0338-0703-41, 0338-0703-48, 0338-0705-41, 0338-0705-48, 0338-0707-48, 0338-0709-48, *available at* https://dailymed.nlm.nih.gov/dailymed/drugInfo.cfm?setid=092ddee4-572d-4771-8d95-880cea01097e.

tient can breathe by other means.[8] And potassium-based drugs, which are typically administered under close medical supervision to prevent a patient from suffering cardiac arrest, are instead used by corrections officials to induce heart attacks and ultimately to stop a prisoner's heart.[9]

Not only have these drugs never been tested for use in capital punishment, but the doses required to repurpose them for executions often have not been clinically studied or approved. The standard injectable dose of pentobarbital, for example, is somewhere between 150 and 200 milligrams.[10] In contrast, corrections officials typically use over 25 to 50 times that amount—5 to 10 grams—when administering the drug to execute a prisoner. *See Bucklew v. Lombardi*, 565 F. App'x 562, 566 (8th Cir. 2014) ("[F]ive grams of pentobarbital are injected into the line. . . . If the five grams of pentobarbital do not result in death, an additional five grams are injected into the line."), *vacated on reh'g en banc*, 783 F.3d 1120 (8th Cir. 2015). Similarly, the normal dose of midazolam for a healthy adult is be-

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[8] *See Baze v. Rees*, 553 U.S. 35, 44 (2008) (noting pancuronium bromide is used as the second drug in a three-drug protocol to "paralyz[e] the diaphragm" and "stop[] respiration"); Casey Lynne Ewart, Note, *Use of the Drug Pavulon in Lethal Injections: Cruel and Unusual?*, 14 Wm. & Mary Bill of Rts. J. 1159, 1183 (2006) ("Pancuronium bromide can stop a person's breathing by paralyzing his lungs and diaphragm.").

[9] *Baze*, 553 U.S. at 44 ("Potassium chloride . . . interferes with the electrical signals that stimulate the contractions of the heart, inducing cardiac arrest.").

[10] U.S. Nat'l Library of Med., *Nembutal Sodium* (Oak Pharm., Inc.), NDC Codes 76478-501-20, 76478-501-50, https://dailymed.nlm.nih.gov/dailymed/drugInfo.cfm?setid=5c380ab0-4386-48b6-80ab-ca594b23bc74.

tween one and two-and-a-half milligrams.[11] But corrections officials use doses ranging between 50 milligrams to 500 milligrams when using midazolam to carry out an execution.[12]

Corrections officials who use drugs at high doses that have not been subject to scientific study, and for purposes the manufacturer never intended, are left to stumble in the dark. If manufacturers only studied a drug's safety and efficacy at low dose, radically amplifying that dose could lead to adverse effects for individuals with certain medical conditions or to undesirable interactions with other drugs in the execution protocol.[13] Moreover, determining if the drug will have

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[11] U.S. Nat'l Library of Med., *Midazolam—Midazolam Hydrochloride Injection, Solution* (Fresenius Kabi USA, LLC), NDC Codes 63323-411-10, 63323-411-12, 63323-411-13, 63323-411-15, 63323-411-18, 63323-411-25, 63323-412-02, 63323-412-03, 63323-412-05, 63323-412-06, 63323-412-10, 63323-412-13, 63323-412-18, 63323-412-25, https://dailymed.nlm.nih.gov/dailymed/drugInfo.cfm?setid=a91ce254-14a3-4cbf-8ab8-5da252aa3fdc#d684b678-cbae-4e0d-a572-40b8fb2a50dd; *see also Arthur v. Dunn*, 137 S. Ct. 725, 728 (2017) (Sotomayor, J., dissenting) (describing expert testimony that "*clinical* doses of midazolam . . . typically range from 2 to 5 mg" as compared to "non-clinical, *lethal* doses" that are orders of magnitude higher).

[12] *See* Ariz. Dep't of Corrs., *Consulting Services for Assessment and Review of Execution Protocols* 40-43 (Dec. 15, 2014), https://corrections.az.gov/sites/default/files/documents/PDFs/arizona_final_report_12_15_14_w_cover.pdf; *Glossip*, 135 S. Ct. 2,734-35 (noting execution protocols requiring 100 and 500 milligrams of injectable midazolam).

[13] *See, e.g.*, Jahan Porhomayon et al., *The Impact of High Versus Low Sedation Dosing Strategy on Cognitive Dysfunction in Survivors of Intensive Care Units: A Systematic Review and Meta-Analysis*, 7 J. Cardiovas. Thorac. Res. 43, 47 (2015), https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4492176/pdf/JCVTR-7-43.pdf (concluding that "higher sedation dosing

the desired effect at an unstudied dose may depend on guesswork and extrapolation. *See, e.g.*, *Glossip*, 135 S. Ct. at 2741 (discussing expert testimony acknowledging that "there is no scientific literature addressing the use of midazolam as a manner to administer lethal injections in humans"); *id.* at 2784 (Sotomayor, J., dissenting) (pointing to the lack of "scholarly research" to support the State's claims about the drug's effects at high doses).

Operating without the benefit of rigorous scientific research, states may be forced to proceed through trial and error. And the errors can be ghastly: uncertainty about a drug's efficacy and dosing appear to have contributed to "horrific execution[s]" in which a prisoner appears "to be in great pain" because the drug did not work to anesthetize the prisoner in the way corrections officials intended. *Arthur*, 137 S. Ct. at 727, 733 (Sotomayor, J., dissenting); *see also Glossip*, 135 S. Ct. at 2790 (Sotomayor, J., dissenting) (describing a botched execution in which the prisoner "awoke" after 100 mg of midazolam was administered and "began to writhe and speak" before he eventually died); Mark Berman, *The Prolonged Arizona Execution Used 15 Doses of Lethal Injection Drugs*, Wash. Post (Aug. 4, 2014) (describing an execution that lasted nearly two hours despite 15 injections of midazolam, which totaled 750 milligrams).

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strategy will impact cognitive function in critically ill patients both medically and psychologically").

B. Facilitating Death Through Lethal Injection Is Not A Medically Accepted Off-Label Use Of Prescription Medicines.

Of course, although FDA only approves a drug for particular uses, doctors may prescribe drugs "for both FDA-approved and -unapproved uses." *United States v. Caronia*, 703 F.3d 149, 153 (2d Cir. 2012). Indeed, off-label drug use is an "accepted and necessary corollary of the FDA's mission to regulate in this area without directly interfering with the practice of medicine." *Buckman Co. v. Plaintiffs' Legal Comm.*, 531 U.S. 341, 350 (2001). "FDA approved indications" are thus "not intended to limit or interfere with the practice of medicine nor to preclude physicians from using their best judgment in the interest of the patient." *Weaver v. Reagen*, 886 F.2d 194, 198 (8th Cir. 1989).

But the central premise of off-label drug use is that it is guided by the scientifically informed judgments of medical professionals making individualized assessments of "a patient's needs and individual characteristics."[14] Accordingly, off-label use will be in a patient's best interest only if it is backed by "credible, published scientific data supporting the use of the drug in that manner."[15] The off-label use of injectable drugs to carry out executions subverts that basic standard.

First, as noted, pp. 7-10, *supra*, there are no rigorous empirical studies of the effects of injectable drugs

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[14] Katrina Furey & Kirsten Wilkins, *Prescribing "Off-Label": What Should a Physician Disclose?*, 18(6) AMA J. Ethics 587, 590 (2016), https://journalofethics.ama-assn.org/sites/journalofethics.ama-assn.org/files/2018-05/ecas3-1606.pdf.

[15] *Id.*

when used at high dosages for the purpose of lethal injection. *E.g.*, *Glossip*, 135 S. Ct. at 2741. Nor could there be, given the grave ethical concerns with such testing. Instead, states are left to observe anecdotally the effects drugs have when used in executions, and to make ad hoc adjustments when a particular drug (or combination of drugs) does not perform as expected. *Id.* at 2746. Reliance on anecdote, without any effort to obtain statistical significance or control for a particular patient's medical history, is antithetical to scientifically accepted standards for prescribing medication.

Second, the choice of drugs and dosing levels are determined by pre-set execution protocols,[16] which leave very little room for consideration of how the "individual characteristics" of an inmate might impact a drug's effect.[17] Indeed, in many cases, there is no individualized medical judgment being exercised at all, because the medical community condemns participation in the execution process. *See* Part III, *infra*. As a result, lethal injection protocols are often administered by individuals who lack the qualifications necessary to make informed medical judgments and to adjust how drugs are administered to the conditions of a particular prisoner. The "use of non-FDA-approved drugs in executions" thus violates the enabling premise of off-label use—deference to the practice of medicine."[18] "Off-label use rests on the implicit assumption that medical

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[16] Ariz. Dep't of Corrs., *supra*, at 40-43.

[17] *See* Furey & Wilkins, *supra*, at 590.

[18] Rose C. Goldberg, *Safe and Effective for Human Executions? Glossip v. Gross and the Eighth Amendment Bar Against Off-Label Drug Lethal Injection*, 68 Stan. L. Rev. Online 1, 4 (2015).

judgment is sufficiently risk mitigating, but this protection is absent" in the lethal-injection context.[19]

This case illustrates the point. Petitioner suffers from a rare medical condition called cavernous hemangioma that causes inoperable blood-filled tumors to grow in his throat and around his face, head, and neck. Pet. App. 6a. His expert reports that, among other issues, Petitioner's tumors will likely cause him to lose the ability to manage his airway after the lethal drug dose begins to flow, and that, as a result, he will experience extreme pain associated with suffocation. *See* Pet. App. 115a-116a. Moreover, according to Petitioner, the anonymous State medical personnel who will assist in his execution will receive limited information about his medical history, leaving them with little ability to modify the State's protocol to address his condition—even assuming they have the expertise and experience to do so. *See* Petr.'s Br. 13. Petitioner is not alone in this regard; other prisoners have likewise identified "individual health attributes" that make the State administration of drugs for non-approved uses especially dangerous. *See, e.g., Arthur*, 137 S. Ct. at 728 (Sotomayor, J, dissenting) (discussing expert testimony that a prisoner's age and "cardiovascular issues" "create[d] a constitutionally unacceptable risk of pain" from the administration of midazolam).

All told, powerful injectable drugs such as sedatives and barbiturates are being used at untested levels for an untested purpose, often without adequate physician supervision. Under such circumstances, the off-label use of these prescription drugs is medically irresponsible. AAM and its members oppose it.

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[19] *Id.*

C. Diverting Drugs From Patient Treatment For Use In Executions Has Unintended Negative Consequences.

The practice of using powerful sedatives, barbiturates, and paralytics for unstudied purposes at unstudied dosing levels also creates market distortions that may negatively impact access to certain drugs. Corrections officials sometimes stockpile drugs in significant quantities—a practice that has real consequences for public health.[20] Drugs like vecuronium bromide and potassium chloride are considered "essential medicines" by the World Health Organization,[21] but they are in short supply.[22] Yet a 2017 study found that just four states had stockpiled enough of these drugs to treat 11,257 patients—if the drugs were used as intended for medical treatment rather than in executions.[23]

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[20] *See* Ed Pilkington, *States Are Stockpiling Lethal Injection Drugs That Could Be Used to Save Lives*, The Guardian (Apr. 20, 2017), https://www.theguardian.com/world/2017/apr/20/states-stockpiling-lethal-injection-drugs-arkansas-execution ("Arkansas has stockpiled sufficient supplies . . . to treat 1,800 patients in potentially life-saving operations. . . . Virginia[] has sufficient stocks of drugs used in its lethal injection protocol to treat almost 5,000 patients in critical operations.").

[21] World Health Org., 19th WHO Model List of Essential Medicines 37, 40 (Apr. 2015), http://www.who.int/medicines/publications/essentialmedicines/EML2015_8-May-15.pdf?ua=1.

[22] Pilkington, *supra*. In fact, more than half the drugs currently used in state execution protocols are experiencing shortages, as reported by FDA and the American Society of Health-System Pharmacists.

[23] *Id.*

Many drug manufacturers, including AAM's members, have worked to stop the diversion of their products away from legitimate medical uses by implementing supply-chain controls to prevent the sale of their medicines for use in capital punishment.[24] The implementation and enforcement of these controls furthers drug manufacturers' legitimate business interest in (a) ensuring that their products are used only for their intended therapeutic purposes, (b) avoiding the reputational cost of being associated with facilitating executions, including executions that go poorly, and (c) reducing the risk of shareholder disinvestment.

But despite efforts to prevent distribution of the drugs to correctional facilities, states have often found ways to secure those drugs for use in capital punishment—sometimes under questionable circumstances. *See* Richard A. Oppel Jr., *Nevada Execution Is Blocked After Drugmaker Sues*, N.Y. Times (July 11, 2018) (describing a temporary restraining order to block Nevada's use of midazolam in an execution based on the manufacturer's suit alleging that the drug was purchased by Nevada under false pretenses, and in violation of the company's distribution controls); Compl., *McKesson Medical-Surgical Inc. v. State of Arkansas et al.*, Circuit Court of Pulaski Cty., Arkansas Div. (Apr. 14, 2017) (alleging that the Arkansas Department of Corrections purchased vecuronium from McKesson, a leading pharmaceutical distributor, by concealing its intent to use the drug in executions, which violated the manufacturer's terms of sale). As a result, drugs may be used for purposes that AAM members did not intend. Moreover, drug manufacturers are limited in

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[24] *See* Erik Eckholm, *Pfizer Blocks the Use of Its Drugs in Executions*, N.Y. Times (May 13, 2016).

their ability to discover whether their distribution policies have been subverted, because several states have adopted secrecy laws that are designed to keep information related to executions confidential—including information about the source of medicines that are used in lethal injections.[25]

That outcome not only conflicts with the policies and values of AAM and its members—and risks significant damage to their reputations—but it also carries the prospect of legal liability. For example, one family of an executed inmate brought a product liability suit against a midazolam manufacturer and a pharmaceutical wholesaler because the manufacturer's product was used in an execution that allegedly caused severe pain and suffering. *See* First Am. Compl. ¶ 162, *McGuire v. Mohr*, No. 14-cv-93 (S.D. Ohio filed Dec. 5, 2014).[26] Continued misuse of drugs by corrections officials may invite future suits against legitimate drug companies, and could ultimately harm patients by contributing to drug shortages.

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[25] *See* The Legal Injection Information Center, *Respecting Corporate Contracts: State-by-State Risk Index* (July 2018), http://lethalinjectioninfo.org/wp-content/uploads/2018/06/State-by-State-Risk-Index.pdf.

[26] The plaintiffs in that case later dropped their suit when the state changed its execution protocol to use other drugs. *See* Jeremy Pelzer, *Dennis McGuire's Family Drops Lawsuit Challenging His Controversial Execution*, cleveland.com (Feb. 3, 2015, 12:59 PM), https://www.cleveland.com/open/index.ssf/2015/02/dennis_mcguires_family_drops_l.html

II. As Members Of The Medical Community, Pharmaceutical Manufacturers Believe That Their Products Should Be Used Only To Treat And Heal Patients.

AAM and its members are opposed to the use of their products for lethal injection because they intend for their products to treat and heal individuals, not to contribute to suffering or end lives. This reflects the basic Hippocratic principle that underlies medical treatment: "do no harm."

Organizations whose members are tasked with direct patient care have opposed lethal injections unequivocally. The American Medical Association, for example, has stated for decades that "as a member of a profession dedicated to preserving life when there is hope of doing so, a physician must not participate in a legally authorized execution."[27] The American Board of Anesthesiology also adheres to that view, and it has even taken the position that members who participate in executions by lethal injection should lose their certifications.[28] The American Nurses Association likewise opposes lethal injection on the ground that "[t]he ethi-

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[27] Am. Med. Ass'n, Code of Medical Ethics Opinion 9.7.3, https://www.ama-assn.org/delivering-care/capital-punishment.

[28] *See* Am. Bd. of Anesthesiology, Inc., Commentary: Anesthesiologists and Capital Punishment (May 2014), http://www.theaba.org/PDFs/BOI/CapitalPunishment Commentary; *see also* Br. of Amicus Curiae Am. Soc'y of Anesthesiologists as *Amicus Curiae* Supporting Neither Party at 2, *Baze v. Rees*, No. 07-5439 (U.S. filed Nov. 13, 2007) ("[T]he Society eschews physician participation in executions as unethical and contrary to the duty of physicians as healers[.]").

cal principle of nonmaleficence requires that nurses act in such a way as to prevent harm, not to inflict it."[29]

Other medical professionals strongly oppose lethal injection on similar grounds. The American Pharmacists Association "discourages pharmacist participation in executions on the basis that such activities are fundamentally contrary to the role of pharmacists as providers of health care."[30] And the American Public Health Association, whose constituency carries out "the majority of executions in the United States," states that participation in lethal injection procedures "is a serious violation of ethical codes and should be grounds for active disciplinary proceedings."[31]

Like the medical professionals responsible for patient care, pharmaceutical companies believe that their products should be used only to heal, not to harm.

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[29] Am. Nurses Ass'n, *Position Statement: Capital Punishment and Nurses' Participation in Capital Punishment* 6 (2016), https://www.nursingworld.org/~4906a3/globalassets/docs/ana/practice/official-position-statements/capital-punishment-position-statement_2017.pdf.

[30] Am. Pharmacists Ass'n, *APhA House of Delegates Adopts Policy Discouraging Pharmacist Participation in Execution* (Mar. 30, 2015), https://www.pharmacist.com/press-release/apha-house-delegates-adopts-policy-discouraging-pharmacist-participation-execution.

[31] Am. Pub. Health Ass'n, *Participation of Health Professionals in Capital Punishment* (Jan. 1, 2001), https://www.apha.org/policies-and-advocacy/public-health-policy-statements/policy-database/2014/07/28/13/02/participation-of-health-professionals-in-capital-punishment.

CONCLUSION

Although AAM takes no position on capital punishment *per se*, its members are strongly opposed to the use of FDA-approved medicines to carry out executions. AAM believes that, in ruling on Petitioner's Eighth Amendment claim, the Court should take into account the serious problems created when prescription drug products are used for purposes that have not been scientifically studied and are completely antithetical to what their manufacturers intended and to what FDA approved.

Respectfully submitted.

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IN THE

Supreme Court of the United States

RUSSELL BUCKLEW,

Petitioner,

v.

ANNE L. PRECYTHE, DIRECTOR,
MISSOURI DEPARTMENT OF CORRECTIONS, *et al.*,

Respondents.

On Writ of Certiorari
to the United States Court of Appeals
for the Eighth Circuit

BRIEF OF AMICI CURIAE FORMER CORRECTIONS OFFICIALS SUPPORTING PETITIONER

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INTEREST OF THE AMICI CURIAE[1]

Amici Curiae are former corrections officials, many of whom have firsthand experience administering the death penalty. Amici submit this brief supporting petitioner to emphasize the heavy burden that executions place on the people who must carry them out—a burden that becomes intolerable when, as here, there is a grave risk that a botched execution will result in excessive pain and suffering. They urge the Court to consider not only the immorality of executing a man using cruel and unusual means, but also the harm to public servants who participate in such an act. Amici are:

Frank AuBuchon
Criminal Justice Consultant; Texas Department of Criminal Justice-Institutional Division (1981-2007)

Allen Ault
Dean, Eastern Kentucky University College of Justice and Safety (2003-2015); former Chief, National Institute of Corrections; former corrections commissioner in Colorado, Georgia, and Mississippi

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[1] Pursuant to Supreme Court Rule 37.6, counsel for amici curiae states that no counsel for any party authored this brief in whole or in part, and no such counsel or party, and no person other than amici and their counsel, made a monetary contribution intended to fund the preparation or submission of this brief. All parties have lodged letters granting blanket consent to the filing of amicus curiae briefs.

In the spirit of full disclosure, counsel for amici previously represented petitioner Russell Bucklew—but that representation ceased years ago.

Dave Cook
Director, Oregon Department of Corrections (1995-2002)

Jerry Givens
Captain, Virginia Department of Corrections (1974-1999); Executioner (1982-1999)

Martin Horn
Secretary, Corrections of Pennsylvania (1995-2000); Commissioner, New York City Department of Correction (2003-2009); Commissioner, New York City Department of Probation (2002-2009)

Steven Martin
Expert, U.S. Department of Justice, Civil Rights Division (1993-2008); Former Corrections Official, Texas Department of Corrections

Ron McAndrew
Prison and Jail Consultant-Expert Witness (2005-present); Director, Orange County Jail (2001-2002); Warden, Florida State Prison (ascended the uniform ranks) (1978-2001)

Doris Parlette
Regional Manager, Indiana Department of Child Services (2007-2008); Superintendent, Indiana Department of Correction (1990-2007)

Gayle Ray
Commissioner, Tennessee Department of Correction (2010-2011)

Chase Riveland
Secretary, Washington Department of Corrections (1986-1997); Executive Director, Colorado Department of Corrections (1983-1986)

Frank Thompson
Superintendent, Oregon State Penitentiary (1994-1998)

Eldon Vail
Secretary, Washington Department of Corrections (2007-2011); Deputy Secretary, Washington Department of Corrections (2000-2007)

Roger Werholtz
Interim Executive Director, Colorado Department of Corrections (2013); Secretary, Kansas Department of Corrections (2002-2010); Deputy Secretary, Kansas Department of Corrections (1987-2002)

Rex Zent
Various Positions, Ohio Department of Rehabilitation and Correction (1970-1997); Warden, North Central Correctional Institution (1994-1995); Warden, Madison Correctional Institution (1989-1994)

SUMMARY OF ARGUMENT

Participating in executions places a tremendous weight on the shoulders of the execution team, including corrections officers, prison chaplains, the medical team, the executioner, and the wardens or other officials who must oversee the process. Even when everything goes according to plan, standing face-to-face with an inmate and taking his life is a substantial burden to carry. The psychological consequences of this burden are well-documented and can be severe. When, as here, an execution is unlikely to go smoothly, and is likely to result in unnecessary pain and suffering, the burden of participation becomes unbearable. Such executions do not serve the State's interests in finality or justice. Instead, they make public servants parties to barbarism. This Court

should recognize that an execution under these circumstances violates the Eighth Amendment's prohibition against cruel and unusual punishment, and it should reverse the judgment below.

ARGUMENT

Executions take a steep toll on the people who oversee and perform them. A corrections employee's principal duty is to care for the inmates under his or her charge to the best of his or her ability, and consistent with the law. Intentionally taking human life runs counter to that duty, as well as society's basic norms—even if the person in question has committed a horrible crime. Moreover, an execution is one of the most solemn and weighty events in the justice system. The procedures are complex, and the cost of error is tremendous. The weight of the situation lands squarely on the execution teams' shoulders. Even in the best of circumstances, it is difficult to bear.

The psychological consequences of carrying this burden are well-documented, and can be severe. The most fortunate cope by distancing themselves from their humanity, relying on the legal process and a sense of duty to shield their psyche. *See* Tolly Moseley, *The Enforcers of the Death Penalty*, Atlantic (Oct. 1, 2014), https://www.theatlantic.com/health/archive/2014/10/the-enforcers-of-the-death-penalty/379901/; Michael J. Osofsky et al., *The Role of Moral Disengagement in the Execution Process*, 29 L. & Hum. Behav. 371, 385 (2005). Others fail to manage the trauma, resorting to alcohol or experiencing symptoms of post-traumatic stress including depression, flashbacks, nightmares, pain with no known physical origin, and dissociative disorders. *See* Lauren M. De Lilly, Note, *"Antithetical*

to Human Dignity": Secondary Trauma, Evolving Standards of Decency, and the Unconstitutional Consequences of State-Sanctioned Executions, 23 S. Cal. Interdisc. L.J. 107, 123-24 (2014). Some have even committed suicide. *See* Amanda Gil et al., *Secondary Trauma Associated with State Executions: Testimony Regarding Execution Procedures*, 34 J. Psychiatry & L. 25, 33 (2006).

Personal accounts of the trauma associated with performing executions are revealing. Dr. Allen Ault oversaw five executions in the State of Georgia. He explained that:

> Those of us who have participated in executions often suffer something very much like posttraumatic stress. Many turn to alcohol and drugs. For me, those nights that weren't sleepless were plagued by nightmares. My mother and wife worried about me. I tried not to share with them that I was struggling, but they knew I was.

Allen Ault, *Ordering Death in Georgia Prisons*, Newsweek (Sept. 25, 2011), https://www.newsweek.com/ordering-death-georgia-prisons-67483. Citing the psychological cost of participating in executions, Dr. Ault resigned his post and became an advocate against the death penalty. *Ibid.*

Donald Cabana, a former warden at the Mississippi State Penitentiary (better known as Parchman Farm), often stated that "[t]here is a part of the warden that dies with his prisoner." Bruce Weber, *Donald Cabana, Warden Who Loathed Death Penalty, Dies at 67*, N.Y. Times (Oct. 13, 2013), https://www.nytimes.com/2013/10/13/us/donald-cabana-

warden-who-loathed-death-penalty-dies-at-67.html. He commented that after an execution, "I was in the shower two hours later, scrubbing and scrubbing. Then I showered again. I just couldn't get the sweat and grime off me to the point where I felt clean enough to go to sleep." Ivan Solotaroff, *The Last Face You'll Ever See: The Private Life of the American Death Penalty* 201 (2001). Years later: "It hasn't come off me yet." *Ibid.* The trauma drove Cabana from his career in corrections, and he became a professor of criminology and an advocate against the death penalty.

Frank Thompson, a veteran, former law enforcement official, and former superintendent of Oregon's state prisons, is "continuously being informed, by those who have been personally and directly involved in executing someone, of the awful, lifelong repercussions that can occur as a result in carrying out executions." Frank Thompson, *Ex-warden: Death Penalty Doesn't Make Guards Safer*, Delaware Online (Apr. 1, 2015), https://www.delawareonline.com/story/opinion/contributors/2015/04/01/ex-warden-death-penalty-make-guards-safer/70791272/. He stated that "[m]any of us who have taken part in this process live with nightmares . . . Correctional officers who carry out execution can suffer from post-traumatic stress, drug and alcohol addiction, and depression." *Ibid.*

Jerry Givens, who carried out 62 executions for the Commonwealth of Virginia, explained that in order to do the job, "[y]ou have to transform yourself into that person that will take a life. Every time an execution was announced, it meant that I had to prepare myself mentally to kill." Selene Nelson, *How It Feels To Kill 62 People*, ThinkProgress (July 15,

2015), https://thinkprogress.org/how-it-feels-to-kill-62-people-963ff9f73afd/. Givens elaborates that "[y]ou can't tell me I can take the life of people and go home and be normal. . . . It took a lot out of me to do it." *Ibid.* Givens also noted that "[a]ll staff who volunteer to be part of an execution feel the stress," and he "pointed out that PTSD can reach all members of an execution team, no matter how indirect their involvement." Mike Pearl, *What It's Like To Be a Death Row Executioner in America*, VICE (May 27, 2015), https://www.vice.com/en_us/article/bnpxp5/how-do-you-get-a-job-as-an-executioner-in-america-526.

Jim Willett, who oversaw 89 executions in Texas,[2] had "no doubt that [executions are] disturbing for all of us. You don't ever get used to it." Bob Herbert, *In America; Inside the Death House*, N.Y. Times (Oct. 9, 2000), https://www.nytimes.com/2000/10/09/opinion/in-america-inside-the-death-house.html. He was forced to "wonder whether people really understand what goes on down here and the effect it has on us." *Ibid.* Also in Texas, Fred Allen, who participated in 130 executions as a member of the team that strapped inmates to the gurney, had a spontaneous breakdown as he reflected on his career. *Ibid.* And Ron McAndrew, who participated in eight executions in Florida and Texas, stated that "[a]t night I would awaken to visions of executed inmates sitting on the edge of my bed." Ron McAndrew, *Florida Must Abolish Flawed Death Penalty*, Orlando Sentinel (May 24, 2009),

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[2] Patrick Beach, *What Ever Happened to . . . Walls Unit Warden Jim Willett*, Austin American-Statesman (Feb. 23, 2013), https://www.statesman.com/news/local/what-ever-happened-walls-unit-warden-jim-willett/p7rgr6qSfOTBazGgS28TnN/.

http://articles.orlandosentinel.com/2009-05-24/news/edp_1_capital-punishment-death-row-death-penalty.

These examples illustrate the trauma that corrections employees undergo when participating in executions, even when an execution goes as smoothly as possible.

This case presents heightened risk because one of the principal sources of anxiety for corrections officials is the risk that an execution will be botched. Such situations not only impugn the competence of the people involved, but also make it impossible for them to dissociate from the horror of their task. Frank Thompson explained that he could not "put into words the anxiety I felt about the possibility of a botched procedure," and stated how—even after executions went as planned—the anxiety caused multiple staff members to have trouble sleeping, to ask not to serve as executioners again, or to seek employment elsewhere. Semon Frank Thompson, *What I Learned from Executing Two Men*, N.Y. Times (Sept. 16, 2016), https://www.nytimes.com/2016/09/18/opinion/sunday/what-i-learned-from-executing-two-men.html.

These fears are well founded in light of recent botched attempts at lethal injection. In the attempted execution of Doyle Lee Hamm—an inmate whose veins were compromised by cancer treatments—corrections employees spent hours attempting to access a vein without success. In the process, the State's refusal to call off the execution effectively forced its employees to torture Hamm, inflicting multiple puncture wounds that left Hamm covered in blood, suffering from an infection and a limp, with pooling of blood in his extremities. Bernard E. Harcourt, *The Barbarism of Alabama's Botched Execution*, N.Y. Rev. Books (Mar.

13, 2018), http://www.nybooks.com/daily/2018/03/13/the-barbarism-of-alabamas-botched-execution/. Hamm's story is the most recent and one of the most extreme, but it is by no means uncommon. The botched execution of Clayton Lockett is another prominent example of lethal injection gone horribly wrong—and indeed, since 1985, "there have been some two dozen reported cases in which executioners have struggled to find a usable vein." *Ibid.*

That very same risk looms large in this case. Mr. Bucklew's medical condition is rare, complex, extremely dangerous, and directly affects both his breathing and his blood vessels. As petitioner's brief explains, the State's medical team—which will be responsible for placing the needles in any lethal injection scenario—will have woefully inadequate information about that condition. Pet. Br. 7-8, 29, 32-34. It is unclear that the State has any reasonable plan for dealing with the specific complications in this case—including the need to keep Mr. Bucklew out of a supine position; the need to account for potential obstruction of his airway; the need to avoid bleeding; the challenges of accessing peripheral veins, and, if that fails, the difficulty of using a central line procedure. *Id.* at 8-15. There is a substantial probability that the process will be lengthy and will end only when Mr. Bucklew either suffocates or drowns in his own blood. *Id.* at 12-13, 43-44. Thus, the risk that public employees will be forced to participate in a gruesome, unconstitutional execution is intolerably high.

This Court simply should not countenance that risk. Regardless of Mr. Bucklew's crime, there is no reasonable justification for allowing the State to force

its public servants to administer lethal injection under these circumstances. The medical team and officers cannot have been properly trained for it, the objective evidence shows that the risk of a botched execution is extremely high, and the likely consequence of that botched execution will be permanent psychological scarring for everybody directly involved. That result does not further the State's interest in finality and justice, for it would only create new wounds by perpetrating a gross injustice. Moreover, such an execution is not what the Founders envisioned when they adopted the Eighth Amendment—and under any standard of basic decency, the law cannot allow it.

CONCLUSION

The judgment below should be reversed.

Respectfully submitted,

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July 23, 2018

No. 17-8151

IN THE

Supreme Court of the United States

RUSSELL BUCKLEW,

Petitioner,

v.

ANNE PRECYTHE, *ET AL.*,

Respondents.

On a Writ of Certiorari to the
Eighth Circuit Court of Appeals

BRIEF OF FORMER JUDGES AND PROSECUTORS *AMICI CURIAE* IN SUPPORT OF PETITIONER

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BRIEF OF *AMICI CURIAE*[1]

INTEREST OF THE *AMICI*

Amici are former federal and state appellate judges, prosecutors, and law enforcement officers.[2] They are leaders in the community and deeply familiar with the criminal justice system. They include stakeholders—former trial and appellate judges, state Attorneys General, United States attorneys, assistant United States attorneys, and elected prosecutors and their deputies—from every stage of the criminal justice process. They are Democrats and Republicans, conservatives, and liberals.

Notwithstanding their diverse backgrounds, *Amici* share a strong interest in the fairness and public legitimacy of the criminal justice system. Their collective centuries of criminal justice experience has taught them that system works best when the processes designed to make it function are applied evenhandedly. The need to do so is particularly acute in cases where the stakes are highest.

INTRODUCTION AND SUMMARY OF THE ARGUMENT

Petitioner Russell Bucklew has a rare medical condition, cavernous hemangioma, which presents

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[1] *Amici* certify that no party or party's counsel authored this brief in whole or in part and that no party or party's counsel made a monetary contribution intended to fund the preparation or submission of this brief. Counsel for both parties received timely notice of *Amici*'s intent to file this brief and have provided blanket consent to filing of any amicus curiae brief in support of either party or neither party.

[2] A complete list of *Amici* appears as an addendum.

unique risks that his execution by lethal injection will cause excruciating pain. In litigating his case before the lower courts, Petitioner faced a series of unusual procedural barriers, none of which have a sound basis in law and each of which were at odds with the rigorous adversarial testing required in any case, but especially where the death penalty is concerned.

Refusing to conduct an evidentiary hearing, the district court assumed the medical competence of those conducting the execution without ever identifying those persons or their qualifications. The court barred discovery on the qualifications of the execution team, and barred counsel from even making a proffer about the need for discovery. These deprivations conspired to render it virtually impossible for Petitioner to plead his case and submit it to the kind of adversarial testing that is at the heart of our system of justice.

This case embodies the problems plaguing other as-applied challenges to lethal injection protocols: courts, when presented with substantial claims about the state's ability to carry out an execution in light of the prisoner's particular medical infirmities, instead of facing them head on, construct novel barriers to fairly adjudicating them. Instead of ensuring reliability via well-established procedural norms, courts in these cases have all too often erected novel procedural obstacles to fully addressing the claims. The opposite should be true. Where inmates with unique medical conditions make substantial showings that an execution process is sure or very likely to cause needless suffering, courts should make every effort to ensure that the parties are able to litigate the claims.

The results have been gruesome. Inmates have had their veins "blow out," they have writhed on the gurney for hours before dying, and in at least three instances, the execution had to be called off because the state and the courts had not heeded the defendant's warnings that the execution could not be humanely carried out in light of a particular medical condition.

Where a petitioner demonstrates that he suffers from a medical or other condition, present through no fault of his own, a court should be required to permit full fact-finding and adversarial testing to determine whether the State's execution protocol would produce a high risk of extreme pain relative to that experienced by a healthy inmate.

In the course of adversarial testing (including discovery related to administration of the protocol in light of the prisoner's infirmities and an evidentiary hearing) if the prisoner has made such a showing, it should be the State's burden to provide an alternative method that would eliminate any undue risk. In light of the procedural irregularities in the as-applied challenges, the Court should take special care to explain in some detail the process that applies once a plaintiff has made a colorable claim for relief under this standard. Doing so will ensure that the procedural fairness upon which we all rely will also reach the cases where the stakes are highest.

ARGUMENT

I. ROBUST ADVERSARIAL TESTING IS FUNDAMENTAL TO THE PROPER FUNCTION OF OUR SYSTEM OF JUSTICE, PARTICULARLY WHERE THE STAKES ARE HIGHEST.

The purpose of adversarial testing is to discover the truth. Where the stakes are highest, the mechanisms for conducting that testing must be robustly enforced, not thrown out the window. Ad hoc departures from the rules—rules that are designed to protect litigants and to ensure the reliability of proceedings—should be avoided absent a compelling need to avoid an injustice. This principle applies with greatest force to cases concerning capital punishment, where the stakes could not be higher.

A. Procedural Protections Are Designed To Produce Just Results.

Amici's collective experience, spanning hundreds of years, has taught us that the truth will most reliably and completely emerge through adversary proceedings between two equally armed advocates zealously asserting their strongest positions. "The adversary system stands with freedom of speech and the right of assembly as a pillar of our constitutional system." Geoffrey Hazard, *Ethics of the Practice of Law*, 120-21, 123 (1978). Just as adversarial processes are at the core of the reliable legal search for truth, so too are they core to the equitable administration of justice. "[Our legal] system assumes that adversarial testing will ultimately advance the public interest in truth and fairness." *Polk County v. Dodson*, 454 U.S. 312, 318 (1981).

A core element of our system is examining the witnesses in opposition:

> A person's right to reasonable notice of a charge against him, and an opportunity to be heard in his defense—a right to his day in court—are basic in our system of jurisprudence; and these rights include, as a minimum, a right to examine the witnesses against him, to offer testimony, and to be represented by counsel.

In re Oliver, 333 U.S. 257, 273 (1948). The opportunity to confront the evidence against oneself is considered a "bedrock procedural guarantee," *Crawford v. Washington*, 541 U.S. 36, 42 (2004), and "the greatest legal engine ever invented for the discovery of truth." *California v. Green*, 399 U.S. 149, 174 (1970).

In addition to examining the witnesses in opposition, being permitted to present one's own case for relief is a fundamental premise of our court system. Providing an interested party with the chance "to contest [the case against him] and produce evidence in rebuttal" is fundamental to ensuring that "honest error or irritable misjudgment" do not interfere with the decision making process. *Goldberg v. Kelly*, 397 U.S. 254, 266 (1970) (internal quotation omitted). "The right to offer testimony of witnesses" is necessary so the factfinder "may decide where the truth lies" and "is a fundamental element of due process of law." *Washington v. Texas*, 388 U.S. 14, 19 (1967).

"The right to be heard would be, in many cases, of little avail if it did not comprehend the right to be heard by counsel." *Powell v. Alabama*, 287 U.S. 45, 68-69 (1932). Access to counsel stems from the "noble

ideal" of "assur[ing] fair trials before impartial tribunals in which every defendant stands equal before the law." *Gideon v. Wainwright*, 372 U.S. 335, 344 (1963). The right to counsel plays a crucial role in the adversarial system . . . since access to counsel's skill and knowledge is . . . critical to the ability of the adversarial system to produce just results." *Strickland v. Washington*, 466 U.S. 668, 685 (1984).

The Federal Rules of Civil Procedure and Evidence are designed to effectuate these protections. The Rules of Civil Procedure provide litigants with powerful tools to obtain relevant information from their opponents. They allow parties to make inquiries of witnesses and each other. Fed. R. Civ. P. 30, 31, 33. The rules provide for production of documents and even for mental and physical examinations. Fed. R. Civ. P. 34, 35. They also permit the parties to focus the litigation by obtaining admissions from each other. Fed. R. Civ. P. 36. And they provide for a timeline and process for undertaking these tasks. Fed. R. Civ. P. 26.

The Federal Rules of Evidence provide for presentation of expert testimony, impeachment of witnesses, and the scope of competent evidence in general. Fed. R. Evid. 402, 601, 608, 702. Both sets of rules represent a careful accounting for the rights and interests of parties and non-parties, as well as the need for adversarial testing in pursuit of the truth.

B. Where The Death Penalty Is At Issue, The Need For Reliability Demands Heightened Procedural Protections.

Due process and the Eighth Amendment both require heightened reliability—and attendant procedural protections—when the stakes are highest.

"When a defendant's life is at stake, the Court has been particularly sensitive to insure that every safeguard is observed." *Gregg v. Georgia*, 428 U.S. 153, 187 (1976) (opinion of Stewart, J.). "[B]ecause there is a qualitative difference between death and any other permissible form of punishment, there is a corresponding difference in the need for reliability in the determination that death is the appropriate punishment[.]" *Zant v. Stephens*, 462 U.S. 862, 885 (1983) (internal quotation omitted).

Consistent with this principle, the Court has established a wide array of procedural protections to ensure that capital cases are reliably adjudicated. *See, e.g., Buck v. Davis*, 137 S. Ct. 759, 778 (2017) (death sentenced inmate entitled to re-open his habeas case under Rule 60(b) where race likely played a role in deciding whether to sentence the inmate to death); *Brumfield v. Cain*, 135 S. Ct. 2269, 2273 (2015) (death sentenced inmate making colorable claim of intellectual disability entitled to evidentiary hearing to prove claim); *Morgan v. Illinois*, 504 U.S. 719, 729-30 (1992) (capital defendant entitled to conduct voir dire of jury venire on views about capital punishment); *Mills v. Maryland*, 486 U.S. 367, 373-75 (1988) (defendant entitled to have each juror individually consider mitigating value of evidence presented at capital sentencing proceeding).[3] Courts

[3] In non-capital cases as well, courts have taken pains to ensure that their procedures do not work injustices, permitting equitable exceptions to rules that would otherwise foreclose relief. *See Pena-Rodriguez v. Colorado*, 137 S. Ct. 855, 869 (2017) (providing exception to the "no-impeachment rule" where a juror made clear and explicit statements indicating racial animus was a motivating factor in the vote to convict); *Martinez v. Ryan*, 132 S. Ct. 1309, 1315 (2012) (excusing procedural

have an obligation not only to assure strict adherence to the law, but to act equitably. The procedural protections afforded capital defendants reflect the need for reliability where nothing less than the litigant's life is on the line.

Courts must balance the competing obligations to act equitably and to predictably uphold the law. "[W]e have followed a tradition in which courts of equity have sought to 'relieve hardships which, from time to time, arise from a hard and fast adherence' to more absolute legal rules, which, if strictly applied, threaten the 'evils of archaic rigidity.'" *Holland v. Florida*, 560 U.S. 631, 649 (2010) (quoting *Hazel-Atlas Glass Co. v. Hartford-Empire Co.*, 322 U.S. 238, 248 (1944)). "[E]quitable procedure" grants courts the "flexibility" which is "necessary to correct . . . particular injustices." *Hazel-Atlas Glass Co.*, 322 U.S. at 248. In the context of deciding whether to toll the statute of limitations in the Antiterrorism and Effective Death Penalty Act (AEDPA) based on attorney misconduct, the Court explained that extraordinary circumstances may warrant tolling to avoid having a habeas corpus case dismissed, resulting in no federal review of the capital defendant's constitutional claims. *Id.* Where the stakes are highest, courts ensure that departures from the rules err on the side of ensuring justice is served.

A state's interest in "avoiding improper delay, expense, complexity, and interference with [its] interest in the 'finality' of its own legal processes" are

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default of federal habeas corpus claim of ineffective assistance of counsel where state post-conviction counsel was ineffective for failing to raise the claim).

often weighed against the need for equitable relief. However, states have no finality interest in a "flawed" outcome. *Buck*, 137 S. Ct. at 779.

Regardless, "ad hoc departure" from the rules and processes normally that govern cases should be avoided in order to "reduce uncertainty, avoid unfair surprise, minimize disparate treatment of similar cases, and thereby help all litigants, including the State, whose interests in 'finality' such rules often further." *Lonchar v. Thomas*, 517 U.S. 314, 324 (1996). And in the context of capital cases, the gravity of the proceedings strongly favors procedural solicitude to the inmate whose life is at stake. *Mathews v. Eldridge*, 424 U.S. 319, 335-36 (1976) (requiring assessment of the "private interest that will be affected by the official action" to determine the extent of process due).

II. IN AS-APPLIED CHALLENGES TO LETHAL INJECTION PROTOCOLS, ADVERSARIAL TESTING IS REQUIRED TO ENSURE THAT PLAINTIFFS ARE NOT SUBJECTED TO UNNECESSARY TORTURE.

As-applied challenges are inherently case-specific. The plaintiff-specific nature of such challenges heightens the need to make a detailed showing. Relatedly, the need for plaintiffs to access the courts' factfinding tools is greater in as-applied challenges. Unfortunately, the opposite has been the norm. In case after case, the courts have erected unusual procedural barriers that undermine plaintiffs' ability to effectively plead and prove as-applied challenges to lethal injection procedures. The results have been gruesome displays that have no place in civilized society.

A. Challenges to the Implementation of Lethal Injection in Light of a Prisoner's Unique Medical Conditions Require Specific Factual Development.

In terms of facial challenges to lethal injection protocols, "*Baze [v. Rees*, 553 U.S. 35 (2008)] [appeared to have] cleared any legal obstacle to use the most common three-drug protocol that had enabled States to carry out the death penalty in a quick and painless fashion." *Glossip v. Gross*, 135 S. Ct. 2726, 2733 (2015). However, two obstacles soon emerged, one broad and one narrow.

The broader obstacle, inapplicable here, has to do with procurement of lethal injection drugs by the states. As pharmaceutical companies learned that their products were being used in executions, they began using their distribution contracts to exclude their use in executions.[4] At the same time, the laws of the European Union prohibited European manufacturers from selling their drugs for use in executions. *See* Ty Alper, *The United States Execution Drug Shortage: A Consequence of Our Values*, 21 Brown J. of World Affairs 27, 28 (2014). These twin developments have made it difficult to obtain drugs and, broadly, to carry out executions. *See, e.g.*, Order, *Alvogen v. State of Nevada, et al.*, A-18-77312-B (Clark County, Nev. July 11, 2018) (granting tempo-

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[4] The corporate opposition to involvement in executions has a historical prologue. Thomas Edison used the controversy around capital punishment to antagonize his competitor, George Westinghouse. Michael Rosenwald, *"Great God, He Is Alive!" The First Man Executed By Electric Chair Died Slower Than Thomas Edison Expected*, Washington Post (Apr. 28, 2017).

rary restraining order halting execution as sought by drug manufacturing company alleging fraud and reputational harm related to procurement and use of its products in an execution). This impediment, the difficulty some states are having obtaining execution drugs, is not at issue here.

The other, much narrower, obstacle *is* at issue. There are a handful of inmates who have rare medical conditions that make their execution via lethal injection much more likely to create a substantial risk of extreme pain. Some of these inmates, such as Petitioner, have raised challenges based on their conditions.

These challenges are not per se challenges to the death penalty or even to lethal injection. They are challenges to the implementation of lethal injection in light of the specifics of their unique medical condition. By their very nature, challenges to protocols based on these medical conditions will be unique to the inmate asserting them.

And depending on the condition at issue, information about a state's protocol may become relevant. For example, where the condition in question concerns a problem with veins, knowing the background and experience of those seeking to obtain intravenous access would be important. *See* David Mbamalu & Ashis Banerjee, *Methods of Obtaining Peripheral Venous Access In Difficult Situations*, 75 Postgraduate Med. J. 459, 459 (1999).

For as-applied challenges, the showing necessary to establish a claim of cruel and unusual punishment will involve asserting facts specific to the challenger as well as information about the process that goes

beyond the plain language of the protocol in question.

Turning to the context of this case, even assuming that Missouri's protocol is followed precisely, without any mistake or error, the risk of severe pain for Bucklew exists because the protocol was not crafted with his unique and rare medical circumstance in mind. In the lower court, counsel for Bucklew presented uncontroverted evidence that their client's cavernous hemangioma could cause him to choke on his own blood during the administration of Missouri's lethal injection protocol. Counsel for Bucklew made many attempts to discover the specificities of the protocol's machinations relevant to his condition, the preparedness of the execution team and the available accommodations and alternatives should Bucklew's airway become engorged with his own blood. The district court denied access to any of the relevant information.

B. Counsel's Diligent Efforts To Pursue Adversarial Testing Of The Protocol Were Frustrated By The Lower Courts

Petitioner is challenging the method and means of his proposed execution because, due to his rare and uncontested medical condition, it poses substantial risks that: he will suffer through repeated, failed attempts to gain peripheral venous access; the tumor on his uvula will rupture early in the process and he will gag on his own blood as a result; when he is made to lie flat during a cut-down procedure he will have difficulty managing his airway; and (assuming the execution progresses this far) when the lethal drug is administered he will, after he loses the ability to manage his airway, experience a sense of suffocating for several minutes. Brief of Petitioner at

30, *Bucklew v. Precythe*, No. 178151 (July 16, 2018). Despite providing compelling evidentiary support about his condition, Bucklew was repeatedly barred from learning whether the execution team was prepared to address these risks.

In the proceedings below, counsel made efforts to obtain discovery in several categories, including the execution protocol, the chemicals, alternative methods of execution, Correctional Department policies and procedures, and the qualifications and individual experience of the execution team. *See* Order Regarding Scope of Discovery, Joint Appendix at 118, *Bucklew v. Precythe*, No. 178151. The district court permitted limited discovery relating solely to the protocol in place at the time and the chemicals to be utilized in the execution (excluding information about where or how the drugs were obtained). *Id.* at 119-26. The district court denied discovery about the individual execution team members, finding it irrelevant since Bucklew did "not allege that changing the execution team members will significantly decrease the risk of pain and suffering."[5] *Id.* at 124.

The Eighth Circuit affirmed the denial of the discovery request because it assumed that the execution team was qualified under the protocol and, despite having no information about their qualifications, competent to perform their assigned duties. Opinion, Joint Appendix at 854.

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[5] The court prohibited discovery about the individual team members, permitting only general discovery relating to the composition of the team (for example, the category of team member and the number of members on the team). *See* Order Regarding Scope of Discovery, Joint Appendix at 124, *Bucklew v. Precythe*, No. 178151.

In addition to denying discovery of information beyond the protocol itself, the district court erected a further obstacle, prohibiting counsel from even making a proffer about the need for additional discovery. During the course of two prior facial lethal injection challenges, *Ringo et al. v. Lombardi, et al.*, No. 09-4095-BP (W.D. Mo.) and *Zink et al. v. Lombardi, et al.*, Case No. 12-4209-BP (W.D. Mo.), counsel for the group of petitioners (which included Bucklew represented by Attorney Cheryl Pilate) conducted depositions of various execution team members, including telephonic depositions of the execution team doctor.

These depositions are covered by a protective order in the prior cases (which were eventually transferred to the same District Court Judge in this case) and are not available publicly. *See* Plaintiff's Motion for Leave to File *Ex Parte* and Under Seal an Exhibit in Support of Plaintiff's Reply Brief in Support of His Motion to Compel, Joint Appendix at 127-28. Though Attorney Pilate had learned information from these depositions that was "highly relevant" to Bucklew's individual medical challenge, she was not permitted to use that information to advocate for her client, nor was she permitted to even share that information with her co-counsel, hindering their ability to effectively advocate for their client.[6] *Id.* at 128.

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[6] The prior cases (*Ringo* and *Zink*) involved primarily the same cast of characters as in the present suit: Missouri Attorney Cheryl Pilate represented Bucklew, Missouri's Office of Attorney General represented the Department of Corrections, and the District Court Judge Beth Phillips presided. There was one exception: pro bono counsel with the

Attorney Pilate attempted to make a record about the relevance of the depositions on three separate occasions. First, she sought leave to file ex parte a proffer in support of her motion to compel discovery that contained excerpts of the depositions. *Id.* Notably, the filing needed to be ex parte only as to her co-counsel, since the judge and the office of the Attorney General all had possession of the confidential depositions in question.[7] *Id.* Attorney Pilate's motion explained that the depositions were "highly relevant to the present litigation." *Id.* In a text only docket entry, without an accompanying opinion or order, the district court denied counsel's request, inexplicably prohibiting counsel from filing the proffer and, thus, from making a record of the need for discovery. Order Denying Motion to File Document Under Seal, Joint Appendix at 131.

The following month, Attorney Pilate again attempted to rely on the relevant information from the *Ringo* and *Zink* depositions, seeking leave to file a two-page Supplement to Plaintiff's Suggestions in Opposition to Defendants' Motion for Summary Judgment. Both the motion for leave and the proffered supplement were in compliance with the prior protective order as well as the district court's previous text order, and did not include any portion of the depositions. Plaintiff's Motion for Leave to File Supplement to Plaintiff's Suggestions in Opposition,

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firm Sidley Austin, who represent Bucklew in the present case, was not involved in the prior facial challenges.

[7] Though the Missouri Attorney General Chris Koster had lost the election against Joshua Hawley, and Mr. Hawley had staffed his office with many new attorneys, they all were given complete access to the confidential depositions.

Joint Appendix at 811. The Motion for Leave provided that "[g]iven the subject matter of portions of the summary judgment briefing, Plaintiff believes it is prudent to preserve his objection and assert this ground as a further basis for denying summary judgment." *Id.* at 812.

Counsel attached the proffered supplement to the motion for leave, averring that she alone (without input or assistance from her co-counsel) had prepared it. In the supplement, counsel argued that "deposition transcripts would provide relevant, admissible evidence bearing on numerous allegedly undisputed facts raised by defendants, as well as providing additional support for facts asserted by Plaintiff." *Id.* at 814. In the deposition, the doctor had "testified on a variety of subjects relating to the manner of carrying out executions, the potential risks involved, and specific relevant aspects of his background." *Id.* at 814-15.

The court again denied leave to file the pleading, on the grounds that "there is no need to risk confusing the Record in this manner." Order Denying Plaintiff's Motion for Leave to File Supplemental Suggestions in Opposition, Joint Appendix at 816.

After the court granted summary judgment, Attorney Pilate sought permission to share the depositions with her co-counsel in order to appeal the court's decisions prohibiting use of the depositions in the course of the litigation. Plaintiff's Notice of Filing Discovery Dispute Summaries, Joint Appendix at 836. Though it had initially scheduled a teleconference for counsel to present her position on the issue, the court sua sponte cancelled the conference and, instead, issued an order denying counsel's request to share the depositions with her co-counsel. *Id.* The

court found no justification to share the depositions because it had found the individual qualifications of the execution team members to be irrelevant. Order Denying Plaintiff's Request for Access to Depositions Taken in Other Cases, Joint Appendix at 834.

Thereafter, Attorney Pilate filed a two-page memorandum preserving her objection to the court's ruling, which counsel argued constituted a due process violation. Plaintiff's Notice of Filing Discovery Dispute Summaries, Joint Appendix at 838-39. The filing noted that counsel had "scrupulously abided by the protective order" pertaining to the depositions, which had left her "unable to discuss them with her co-counsel or to explain, even in general terms, why lack of access to them has impaired Plaintiff's ability to litigate his due process claim." *Id.* at 838.

The memorandum highlighted the inherent unfairness of the bizarre situation: the one and only party to the litigation that did not have access to the information was co-counsel for Bucklew. In prohibiting pro bono co-counsel for Bucklew from having access to these "highly relevant" materials the district court interfered with counsel's ability to zealously advocate for their client. Additionally, the court's rulings ultimately interfered with the attorney client relationship, by effectively preventing Attorney Pilate from discussing the depositions with her client, because she could not take the risk that he would mistakenly communicate the confidential information to her co-counsel.

In curtailing discovery of new information while precluding counsel from using information she already knew, the district court impeded the adver-

sarial process, effectively stripping Bucklew of important procedural protections.[8] The defense specifically requested discovery of the qualifications of the execution team in order to discover whether the medical members of the execution team were informed as to the details of Bucklew's rare medical condition and medically equipped to manage the execution in light of that condition. That the execution team was qualified under the protocol did not necessarily mean that it was qualified to medically manage Bucklew's condition.

Notably absent in the discovery pertaining to the approved execution protocol was any evidence or indication that the protocol was developed to, in any way, accommodate Bucklew's condition. The medical background and qualifications in the area of cavernous hemangioma of the individual execution team members was and remains of vital import, since the team would be responsible for making in-the-moment decisions during the execution procedure.

As Missouri DOC Director Precythe testified, she was not educated about Bucklew's medical condition and would need to defer to the medical members of the execution team to navigate his particularized issues. Brief of Petitioner at 30, *Bucklew v. Precythe*, No. 178151 (July 16, 2018). The medical team would be permitted to exercise considerable discretion in

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[8] Because he was not permitted to depose the execution team, Bucklew was also unable to question them as to specific details about the administration of the protocol beyond those expressly enumerated. For example, he was unable to ascertain the size of the needles, the constrictive nature of the restraints, or the capability of the gurney to be placed in a seated or partially reclined position.

devising potential contingency plans, perhaps even after the procedure began. These extra-protocol, sub-rosa actions require the team to rely upon its knowledge and experience regarding Bucklew's rare condition. Thus, their knowledge and experience was key.

The district court's refusal to permit discovery on this question hamstrung both counsel and the appellate court in assessing his claim that Missouri's execution protocol would, in light of his rare medical condition, amount to torture.

C. Botched Executions Of Medically Infirm Prisoners Underscore The Need For Adversarial Testing In As-Applied Challenges.

The need for specific fact finding in this area is clear in light of several recent botched executions, where various states' protocols failed to adequately account for the individual medical needs of infirm prisoners. In these cases, the prisoner's unique infirmities resulted in an increased risk of harm and an inability to complete the execution. In each case, last minute modifications were made to address the prisoner's medical complications. These modifications—which were implemented without adversarial testing—did not correct the risk of harm, and, instead, may have actually exacerbated the harm incurred.

Doyle Hamm was scheduled to be executed one month before Petitioner. Prior to the execution, his counsel filed a complaint in federal court arguing that his client's medical condition, which included a diagnosis of and ongoing treatment for lymphatic cancer, created a substantial risk of harm under

Alabama's lethal injection protocol, in part because of increased difficulty finding a vein. Petition for Writ of Certiorari, at 2-3, *Hamm v. Dunn*, 138 S. Ct. 828 (No. 17-7855).

Instead of accepting the full implications of the plaintiff's evidence that his medical condition would render his execution cruel and unusual, the district court and then the Eleventh Circuit Court of Appeals adopted unusual procedural modifications of the protocol. First, the district court prohibited the state from attempting peripheral venous access on Hamm's upper extremities. *See Hamm v. Comm'r, Ala. Dep't of Corr.*, No. 18-10636, 2018 WL 1020051, at *1-*2, *7 (11th Cir. Feb. 22, 2018).

The district court did not address whether central venous access was permissible; though its own expert had concluded that such access would require ultrasound equipment and a specialized medical professional. *Id.* Next, the Eleventh Circuit required the state's experts to submit affidavits directly to that court assuring them that the state would have a doctor involved in the event that central venous access would be required. *Id.* Both federal courts precluded Hamm from presenting evidence challenging the newly modified protocol. *See* Petition for Writ of Certiorari, *Hamm*, 138 S. Ct. 828 (No. 17-7855).

Hamm argued unsuccessfully to this Court that even if peripheral venous access is achieved (per the district court's order), injection of large quantities of the drugs would "blow out" his peripheral veins and result in the infiltration of the lethal drugs in his flesh, rather than his blood system, causing severe and unnecessary pain and suffering. *Id.* at 8.

This Court declined to issue a stay and the execution went forward, almost exactly as predicted by counsel for Hamm. An initial group of executioners attempted to gain IV access on five different locations in Hamm's body. After failing to find a suitable vein, two additional executioners entered the chamber, one carrying an ultrasound device. One placed gel on Hamm's groin while the other "began inserting multiple needles into his groin and pelvis, with repeated jabbing movements, hitting deep into the retropubic area." Bernard E. Harcourt, *The Barbarism of Alabama's Botched Execution*, The New York Review of Books (Mar. 13, 2018). Blood gushed out of Hamm, soaking the pad beneath him. *Id.* Hamm began to pray the execution would succeed, just so the ordeal would come to an end. *Id.*

Hamm's attorney, barred from viewing the chamber, pleaded for a word with the warden when, an hour into the process, it was clear something unusual was afoot. Per the state's protocol, he was denied the opportunity. *Id.* Ultimately, the execution was halted. Instead of further defending the process, the State of Alabama entered a confidential settlement with Hamm, who is alive today.[9] Jordan Rubin, *Alabama Inmate With Cancer Settles Execution Fight*, Bloomberg Law (Apr. 5, 2018).

At least two other attempted lethal injection executions have been brought to a halt where the Depart-

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[9] Exhibiting an apparent moment of an utter lack of insight, the warden in Hamm's case refused to acknowledge that there was a "problem" with the attempted execution. Bernard E. Harcourt, *The Barbarism of Alabama's Botched Execution*, The New York Review of Books (Mar. 13, 2018).

ment of Corrections itself determined that the execution could not be completed. *See* Bernard E. Harcourt, *The Barbarism of Alabama's Botched Execution*, The New York Review of Books (Mar. 13, 2018); Jeva Lange, *Severely Ill Inmate's Execution Called Off Mid-procedure*, The Week (Nov. 17, 2017); Peter Krouse, *Failed Execution of Romell Broom Prompts Efforts to Block Second Attempt*, Cleveland Plain Dealer (Sept. 17, 2009); *see also Francis v. Resweber*, 329 U.S. 459 (1947) (recounting survival of electrocution procedure).

Alva Campbell objected to the application of Ohio's execution protocol based on medical diagnoses, including venous issues similar to those in the present case. Campbell had a history of multiple illnesses and surgeries requiring IV treatment and resulting in compromised veins. He suffered from terminal cancer, emphysema, and respiratory failure, resulting in the removal of a lung. Petition for Writ of Certiorari, *Campbell v. Jenkins*, 138 S. Ct. 466 (2017) (mem.) (No. 17-6688).

Campbell's attorneys argued that his unsuitable veins caused a substantial likelihood of severe pain due to the inability to find access to a vein and that his pulmonary illnesses would cause him to suffer from obstructed breathing and "air hunger." *Id.* at 17, 19-20. His pre-execution attempts to litigate the impact of his medical condition upon Ohio's execution protocol were consistently denied by state and federal courts on procedural grounds. Reply in Support of Petition for Writ of Certiorari, *Campbell v. Jenkins*, 138 S. Ct. 466 (2017) (mem.) (No. 17-6688).

On the day of the scheduled execution, the prison provided Campbell with a pillow, in order to prevent accidental suffocation during the injection procedure.

Executioners then unsuccessfully searched for a vein for twenty-five minutes, repeatedly puncturing Campbell in his arms and leg. Ultimately, Ohio's governor halted the execution. *Id.* Campbell subsequently died of his various ailments. Katherine Lam, *Ohio Inmate Whose Execution Was Called Off Dies of Natural Causes*, Fox News (Mar. 4, 2018).

Ohio's attempted execution of Romell Broom lasted for two hours before the governor called it to a halt. Prison staff spent over an hour attempting to obtain venous access in the arms and legs of Broom. *State v. Broom*, 51 N.E.3d 620, 624 (Ohio 2016). Correctional officers first spent approximately 45 minutes attempting to access veins in Broom's arms. *Id.* After taking a short break, a prison doctor (not included in Ohio's protocol) began attempting to locate veins in Broom's feet and ankles. *Id.* Broom attempted to assist the officers in finding a suitable vein: rolling over on his side, flexing his fingers and rubbing the IV tubes over his veins. Stephen Majors, *Governor Delays Ohio Execution After Vein Troubles*, Associated Press (Sept. 15, 2009). When that was unsuccessful, he rolled over onto his back, crying, and the officers handed him a roll of toilet paper to wipe his face, before patting him on the back and leaving the death chamber. *Id.*; *see also Broom*, 51 N.E.3d at 624. After two hours, the execution team took another break and determined that they could not access a vein. *Id.* In total, Broom sustained at least eighteen puncture marks over his body. *Id.* Ultimately, Ohio's governor granted a one-week reprieve.

During the two hour execution attempt, Broom's attorneys tried repeatedly and unsuccessfully to gain access to their client. Stephen Majors, *Governor delays Ohio Execution After Vein Troubles*, Associat-

ed Press (Sept. 15, 2009). Counsel was informed that attorney access was not permitted once the execution process had begun. *Id.*

In each of these cases, the failure to adequately examine the impact of medical infirmities on the execution protocol resulted in extreme pain and, ultimately, aborted executions. Exacerbating the harm in these cases were the reasonably foreseeable but medically and legally untested ad hoc modifications and contingencies. Though counsel for Campbell and Hamm attempted to examine and avoid these foreseeable consequences, they were estopped from doing so. Ultimately, their clients were tortured while counsel, despite their diligent efforts, stood by unable to intervene. These gruesome and predictable executions were not "innocent misadventures" but rather represent reasonably foreseeable violations of the Eighth Amendment, which, with adequate discovery and testing, could have been avoided.

III. BASIC PROCEDURAL SAFEGUARDS SHOULD APPLY UPON A SUBSTANTIAL THRESHOLD SHOWING THAT AN EXECUTION POSES A HIGH RISK OF EXTREME PAIN WHEN COMPARED TO ITS EFFECT ON A HEALTHY PERSON.

As with other claims of deprivations of constitutional rights, it is the plaintiff's burden to prove the case for entitlement to relief. But, as with other deprivations, there is a preliminary question: what showing is necessary to trigger the robust procedural protections attendant to claims regarding matters of life and death.

A. The Court Should Require a Full and Fair Hearing, Once a Substantial Threshold Showing Has Been Made.

The treatment of as-applied challenges by the lower courts strongly suggests this Court should provide specific guidance on the process by which the lower courts address the merits of such claims. Doing so will allow the adversarial system to work as it should and will prevent the gruesome spectacle of botched executions, narrowly avoided in this case, from repeating itself.

At a minimum, a substantial threshold showing of entitlement to relief ought to entitle the plaintiff to a "fair hearing" consistent with fundamental fairness. *Panetti v. Quarterman*, 551 U.S. 930, 949 (2007) (quoting *Ford v. Wainwright*, 477 U.S. 399, 426 (1986) (Powell, J., concurring)). Such a showing should not be onerous to make, and the quantum of proof need not be great. A plaintiff should be required to offer substantial evidence that because of a medical or other condition present through no fault of his own, the State's execution protocol would produce a high risk of extreme pain relative to that experienced by a healthy inmate. Upon a substantial showing of entitlement to relief, the "fair hearing" must, as a matter of due process, include, at a minimum, the adversarial presentation of evidence, argument from opposing parties, and factfinding on the record. *Id.*

The Federal Rules of Civil Procedure and Rules of Evidence provide sound (and generally controlling) guidance. *Compare Gonzalez v. Crosby*, 545 U.S. 524, 529 (2005) (noting AEDPA supplanted some Rules of Civil Procedure for purposes of habeas corpus cases) *with Hill v. McDonough*, 547 U.S. 573, 582 (2006)

(noting that 42 U.S.C. §1983 does not impose pleading requirements beyond those in the federal rules). Courts should be reluctant to depart from them.

Discovery should be readily available, and the appellate courts should not engage in ad hoc fact finding, a task they are ill equipped to undertake. Courts must be made to take seriously and consider with care claims that an inmate's unique medical condition will render an otherwise valid execution protocol tortuous.

Not being forced to make this assessment under the often-compressed timetable of a looming execution will reduce this risk. A substantial threshold showing, if made within a reasonable period after an execution warrant is issued, should also entitle an inmate to a stay of execution. *Hill*, 547 U.S. at 584; *Nelson v. Campbell*, 541 U.S. 637, 649-50 (2004). Providing a stay will alleviate the chaos and highly time-pressured filings that are all too often characteristic of the process in as-applied lethal injection cases.

The State may complain, as they have here, that an as-applied challenge has not been raised in a timely fashion. However, an as-applied challenge to a lethal injection protocol is often not ripe until an execution warrant is issued. *Accord Panetti*, 551 U.S. at 943. States often change protocols, making it difficult to know which protocol will be in place at the time of any given execution. *See, e.g.*, Death Penalty Info. Ctr., *Nevada Announces New Drug Protocol Eight Days Before Scheduled Execution* (July 5, 2018). And an inmate's medical condition, like his mental status, is not static. A new diagnosis or a deterioration in condition could warrant further factual development.

A stay should also readily issue if a state has also only recently adopted a new or altered protocol responsive to problems. Not providing some time for review and testing of a protocol poses a risk that an inmate would be executed despite a substantial risk of extreme pain in light of his particular medical condition. In apparent recognition of this concern, at least one state has agreed to withdraw any pending warrants if there is a change to the protocol. Stipulated Settlement, *First Amendment Coalition of Ariz., Inc., et al. v. Ryan, et al.*, No. 2:14-cv-01447-NVW-JFM (ECF 186) (June 21, 2017).

The goal is to let our judicial system work. When the litigants are able to equally and fully make use of the fact finding tools it provides, the truth emerges and justice is served. Sometimes delaying an execution will be necessary to let these processes play out. But these are in rare cases, involving prisoners with unique and substantiated medical conditions. Where a plaintiff has made a substantial threshold showing, a full and fair hearing should be provided.

B. The Alternative Method Requirement Has No Place In As-Applied Challenges.

The Court has not addressed whether naming an alternative method of execution is required in as-applied challenges to methods of execution. *See Glossip*, 135 S. Ct. at 2733 (discussing facial challenge to protocol). There are several reasons for not imposing such a requirement in as-applied challenges. The rationale for the requirement—to avoid allowing a facial challenge to a method of execution to function as an attack on the death penalty itself—simply does not apply to as-applied challenges.

As-applied challenges are necessarily about the unique circumstances of the persons making them and pose no risk of bringing executions to a halt more broadly. Perhaps the most probative evidence of this reality is that five persons have been executed in the time since the Court accepted review in this case. Death Penalty Info. Ctr., *Execution Database* (showing five executions between April 30, 2018 and July 18, 2018) available at https://deathpenaltyinfo.org/views-executions.

Without access to the courts' tools for discovery, it would be unfair to require that prisoners in as-applied challenges propose an alternative method. At the complaint-filing stage, the inmate will lack information critical to meaningfully asserting alternatives. They will not know how much the medical team knows about their condition, what accommodations the state is able and planning to make in light of the condition, and information about the team members and equipment that will be used in the execution.

The information imbalance is exacerbated by the state secrecy laws and practices that have proliferated in the context of executions. States have made their drug suppliers literal state secrets. States keep the curtains drawn during executions, and the identities and qualifications of execution team members are often not public information. *See, e.g.*, Mo. Rev. Stat. 546.720(2)-(3) (2007) (prohibiting disclosure of the identity of any execution team member); Ark. Code § 5-4-617(D)(h)-(i) (2015) (exempting information pertaining to execution procedures and team members from state public disclosure laws); La. Rev. Stat. Ann. § 15:570(G) (2012) (amended 2014) (prohibiting disclosure of information about the

identity of execution team members, including the identities of persons and documents that could lead to the determination of the identities of the team members); Okla. Stat. § 22-1015(B) (2014) (making confidential and exempt from discovery in any judicial proceeding the "identity of all persons who participate in or administer the execution process and persons who supply the drugs, medical supplies or medical equipment for the execution" as well as any information related to the drug purchases). Where the source of the risk of suffering is related to non-public information, it is unfair to require a plaintiff to name an alternative method.

Requiring instead, as we propose, the State to present evidence of alternatives and accommodations in an evidentiary hearing on the risk the execution would pose would serve dual goals: It would provide a level playing field whereby the party with the information relevant to the availability of alternatives is the party tasked with asserting them. It would also allow states to clear this obstacle to execution by addressing the problem asserted by the plaintiff.

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Our proposals are premised on a level playing field. Inmates and their counsel must be provided with the procedural protections and tools necessary to develop and present their case for relief. The one-sided fact development, lack of access to counsel, and unresponsiveness to serious concerns about the risks posed in light of an inmate's medical condition have distorted both the process and the reliability of the outcomes in challenges to lethal injection protocols. Courts should provide robust procedural protections

in these cases to ensure that inmates' claims are fully and fairly heard.

CONCLUSION

The judgment of the court below should be reversed.

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No. 17-8151

In the Supreme Court of the United States

RUSSELL BUCKLEW

Petitioner,

v.

ANNE PRECYTHE, ET AL.

Respondent.

ON WRIT OF CERTIORARI
TO THE UNITED STATES COURT OF APPEALS
FOR THE EIGHTH CIRCUIT

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INTEREST OF *AMICI CURIAE*[1]

Amici Megan McCracken and Jennifer Moreno are experienced attorneys who have extensively studied methods of execution, including lethal injection, since 2007.[2] They have served as expert counsel advising lawyers representing inmates in lethal injection challenges, including as-applied challenges.

Amici therefore have extensive expertise in the nature of the risks posed by various lethal injection procedures, including the risks posed to inmates who have specific severe medical conditions that could make the lethal injection process uniquely torturous when applied to them. Amici were involved in the as-applied challenges described in this brief, and are therefore familiar with the circumstances in which an inmate's unique medical condition creates a real, predictable risk that the lethal injection procedure will interact with the inmate's medical condition to cause severe pain and suffering.

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[1] Pursuant to Supreme Court Rule 37.6, counsel for amici curiae state that no counsel for a party authored this brief in whole or in part, and no party or counsel for a party, or any other person other than amici curiae or their counsel, made a monetary contribution intended to fund the preparation or submission of this brief. All parties have consented in writing to the filing of this brief.

[2] Amici file this brief in their individual capacities. Ms. McCracken is affiliated with the University of California, Berkeley, School of Law Death Penalty Clinic, and Ms. Moreno is a staff attorney employed by that clinic. That institutional affiliation is provided for identification purposes only.

As attorneys advising in cases involving as-applied challenges to lethal injection procedures, amici have an interest in the proper development of the law governing those challenges. Amici also have an interest in ensuring that the inmates on whose cases they advise are executed in a humane manner and are not subjected to unnecessary pain and suffering.

INTRODUCTION AND SUMMARY OF ARGUMENT

In this case, Petitioner Russell Bucklew does not challenge the constitutionality of the death penalty or of Missouri's lethal injection protocol. He challenges only the constitutionality of the application of this protocol to him, based on his known, unique medical condition, cavernous hemangioma. Mr. Bucklew claims that the specific interaction between this rare condition and Missouri's particular execution protocol gives rise to a significant risk of severe, unnecessary pain that would not be present in the ordinary case.

I. The risk that Mr. Bucklew has identified is real. In prior, similar cases in which inmates have presented evidence that their severe medical conditions cause demonstrated physical effects that will interact with specific aspects of a lethal injection procedure to cause unconstitutional suffering, the inmates' predictions were proven right when the state attempted to execute them. These inmates predicted with precise accuracy the unnecessary pain and suffering that execution pursuant to the standard protocol would cause.

Dennis McGuire, executed in Ohio in 2014, presented evidence that in light of his breathing condition, administration of the lethal injection drugs would cause him to experience suffocation for a significant period before he lost consciousness. Mr. McGuire was right: his execution was the longest in Ohio's history, during which he visibly struggled, choked, and gasped for air. Doyle Hamm, who Alabama attempted to execute in 2018, predicted that his lymphatic cancer and compromised vascular system would render his veins uniquely inaccessible, even through a more invasive central line procedure. The execution team attempted for several hours to insert an IV, eventually using needles to unsuccessfully probe deep within his groin tissue to locate a central vein and causing severe bleeding. When the state abandoned the attempt to execute him, Mr. Hamm could not walk unsupported. And Alva Campbell, whom Ohio tried and failed to execute in 2017, predicted his numerous medical conditions would make it impossible to access his veins. After numerous painful attempts to find an IV, the execution team called off the execution.

II. An as-applied challenge like Mr. Bucklew's is a narrow claim that relies on concrete medical evidence, falls well within the court's competence, and serves important interests. Such challenges do not "attack . . . the death penalty itself." *Glossip v. Gross*, 135 S. Ct. 2726, 2738 (2015). They presume the death penalty's constitutionality, as well as that of the particular protocol at issue. They challenge only the specific application of a given protocol to the particular inmate because of the protocol's expected

interaction with the inmate's known, unique medical condition.

In order to demonstrate a "substantial risk of serious harm," *Baze v. Rees*, 553 U.S. 35, 50 (2008) (plurality op.), an inmate raising an as-applied challenge must present evidence that (1) he has a particular medical condition that (2) will interact with the state's execution protocol in identifiable, predictable ways that (3) render it "sure or very likely to result in" unconstitutional pain. *Glossip*, 135 S. Ct. at 2739. Thus, the inmate may not simply identify his medical condition; he must explain how that condition will interact with identified aspects of the particular execution protocol. In addition, the inmate must demonstrate that the resulting pain rises to the level of unconstitutional suffering. When inmates present this evidence—as Messrs. McGuire, Hamm, and Campbell did—they establish that their execution involves special circumstances that must be addressed in order for them to be executed consistently with the Eighth Amendment. The execution attempts described above prove beyond any doubt that severe consequences flow from disregarding inmates' specific, substantiated medical concerns.

Because as-applied challenges like Mr. Bucklew's are based on specific medical conditions that interact with aspects of the lethal injection process, they are necessarily brought only infrequently. And when an inmate brings such a claim, it will present concrete factual issues that are well within the court's adjudicative competence and the state's own knowledge. Because inmates bringing such

challenges will likely have been treated for the relevant conditions in prison, the state will have access to their medical records and will be unlikely to be blindsided by such challenges. The court can easily dismiss unsubstantiated claims. When claims do go forward, prison medical records, together with expert testimony and, in appropriate cases, targeted discovery, will provide the court with a concrete factual basis on which to evaluate the claim. The well-defined medical issues involved are of the sort that courts adjudicate all the time, including in garden-variety prison-conditions litigation. For these reasons, as-applied challenges do not raise the concerns about general federal supervision of state execution procedures that this Court identified in *Baze* and *Glossip*.

At the same time, as-applied challenges serve critical interests. They facilitate a dialogue between the inmate and the state to secure the common goal of ensuring that executions are administered in accordance with the Constitution. Botched executions—particularly those accurately predicted by the inmate involved—damage the credibility of the state's execution procedures and traumatize witnesses. By raising the specific issues presented by his or her unique medical condition, inmates can help states avoid needlessly inflicting severe pain when executing a severely ill inmate.

ARGUMENT

I. Prisoners with Unique Medical Conditions Have Routinely Been Able to Successfully Predict the Needless Suffering Imposed on Them by Their State's Execution Protocol

Petitioner Russell Bucklew brings an as-applied challenge to Missouri's standard execution protocol on the grounds that executing him pursuant to that protocol will cause him to, among other harms, suffocate and choke on his own blood. That unique danger is the result of the interaction of Missouri's protocol with the blood-filled tumors in Mr. Bucklew's throat that result from his rare medical condition, cavernous hemangioma.

Inmates have brought as-applied challenges like Mr. Bucklew's only infrequently. But when inmates do assert that their specific medical conditions will interact with identified aspects of the execution procedure in a manner that causes unconstitutional suffering, their concerns are frequently well-founded. Although previous as-applied challenges generally have been rejected by courts, subsequent attempts to execute the inmates have borne out the precise concerns they raised in court. Three such examples—the execution of Dennis McGuire and the attempted executions of Alva Campbell and Doyle Hamm—demonstrate beyond doubt that the risks of severe pain identified by prisoners in cases like Mr. Bucklew's are real. Disregarding these concerns has resulted in extraordinary and unnecessary suffering.

A. Dennis McGuire

Prior to his execution in January 2014, Dennis McGuire challenged Ohio's execution protocol as it applied to him, contending that "following [the state's] protocol [would] subject [him] to an unconstitutional substantial risk of severe pain that constitutes cruel and unusual punishment." Opinion and Order at 2, *In re Ohio Execution Protocol Litigation*, No. 2:11-cv-01016 (S.D. Ohio Jan. 13, 2014), ECF No. 390 ("McGuire Op.").

Mr. McGuire alleged that his particular medical and physical characteristics increased his risk of obstructive sleep apnea. *Id.* at 9. Based on medical expert testimony, he contended that in combination with this condition, the administration of midazolam and hydromorphone, the two drugs specified in Ohio's lethal injection protocol, would make him experience "a need or sensation to breathe, and he will suffer an obstruction that he will be unable to mitigate," which would in turn force him to experience "'air hunger,' . . . a terrifying inability to obtain a breath . . . for up to a 5-minute window before the drugs alleviate his awareness of [the sensation]." *Id.* Mr. McGuire contended that a higher dose of midazolam, as provided in Florida's execution protocol, would alleviate the risk posed by his condition. *Id.* at 7-8.

The district court held that Mr. McGuire "has failed to persuade that he is likely to experience th[e] condition [of air hunger]." *Id.* at 10. Although the district court acknowledged that "Ohio's current protocol presents an experiment in lethal injection

processes" and that the inquiry was "at best a contest of probabilities" and "lacking actual application in studies," it concluded that Mr. McGuire had not established that he was sufficiently likely to experience air hunger to prevail. *Id.* at 10-11. In particular, the court rejected Mr. McGuire's medical expert's estimate that there would be a five-minute period during which he would experience air hunger before the drugs eliminated his awareness. *Id.* Mr. McGuire's petition was denied, and he was executed on January 16, 2014.

The results were just as predicted, except that Mr. McGuire's expert's calculation of a five-minute window during which he would suffer was far too conservative. It took almost a half hour for Mr. McGuire to die, "the longest execution in Ohio since the state resumed capital punishment" in 1999. Postmedia Breaking News, *'Oh, My God': Daughter Reveals She Covered Her Ears During Final Moments of Dad's 'Agonizing' 26-Minute Execution* (Jan. 17, 2014). Just as Mr. McGuire predicted, observers to the execution noted that Mr. McGuire appeared to be suffering deeply, choking, struggling, and gasping for air for more than 10 minutes, as "his body was slowly strangling itself from the inside, rather than causing him to drift off to sleep [as was intended]." Matt McCarthy, *What's the Best Way to Execute Someone?; Doctors Say Lethal Injection Is Often Botched and Horrific*, Slate Magazine (March 27, 2014).

Mr. McGuire's spiritual advisor, who observed the execution, described the experience:

> At about 10.31am, his stomach swelled up in an unusual way, as though he had a hernia or something like that. Between 10.33am and 10.44am – I could see a clock on the wall of the death house – he struggled and gasped audibly for air.
>
> I was aghast. Over those 11 minutes or more he was fighting for breath, and I could see both of his fists were clenched the entire time. His gasps could be heard through the glass wall that separated us. Towards the end, the gasping faded into small puffs of his mouth. It was much like a fish lying along the shore puffing for that one gasp of air that would allow it to breathe.

Lawrence Hammer, *I Witnessed Ohio's Execution of Dennis McGuire. What I Saw Was Inhumane*, The Guardian (Jan. 22, 2014), https://www.theguardian.com/commentisfree/2014/jan/22/ohio-mcguire-execution-untested-lethal-injection-inhumane. Another observer, Columbus Dispatch reporter Alan Johnson, similarly explained that Mr. McGuire seemed to be gasping for air for over 10 minutes, describing that Mr. McGuire "gasped deeply. It was kind of a rattling, guttural sound. There was kind of a snorting through his nose. A couple of times, he definitely appeared to be choking." Dana Ford and Ashley Fantz, *Controversial Execution in Ohio Uses New Drug Combination*, CNN.com (Jan. 17, 2014), https://www.cnn.com/2014/01/16/justice/ohio-dennis-

mcguire-execution/index.html; *see also* Andrew Welsh-Huggins, *'Agonizing' Execution Takes Nearly 25 Minutes*, Fort Wayne Journal Gazette (Jan. 17, 2014). And Ohio's execution team leader testified in a subsequent proceeding that Mr. McGuire's executions "affected him unlike any other and that he 'was wondering what was going on'" during the execution, because Mr. McGuire's body moved in a way unseen in any of Ohio's other modern executions. Mark Gokavi, *Official 'Wondered What Was Going On' in McGuire Execution*, Dayton Daily News (Jan. 3, 2017), https://www.daytondaily news.com/news/crime--law/official-wondered-what-was-going-mcguire-execution/90O8qZYkWsnagye TK0CWvJ.

After Mr. McGuire's execution, Ohio agreed to change its execution protocol, and both the state and a federal court placed a temporary moratorium on executions in the state. *Anesthesiologist: Ohio Inmate Suffered During Execution*, USAToday (Aug. 12, 2014).

B. Doyle Lee Hamm

Alabama's failed attempt to execute Doyle Lee Hamm provides another example of the predictive accuracy of specific as-applied challenges like Mr. Bucklew's. Mr. Hamm, who has been on Alabama's death row for over thirty years, *see* Compl. at 1, *Hamm v. Dunn*, 2:17-cv-02083 (N.D. Ala., Dec. 13 2017), ECF No. 1 ("Hamm Compl."); First Am. Compl. at 2, *Hamm*, 2:17-cv-02083 (N.D. Ala., Jan. 16 2018), ECF No. 15 ("Hamm Am. Compl."), suffers from several severe medical conditions that have

seriously compromised his veins, Hamm Compl. at 1; Hamm Am. Compl. at 2; *see* Prelim. Report of Dr. Mark Heath at 3, *Hamm v. Dunn*, 2:17-cv-02083 (N.D. Ala., Jan. 16, 2018), ECF No. 15-1 ("Oct. Heath Report"). Specifically, Mr. Hamm was diagnosed with lymphatic cancer in 2014. *See* Hamm Compl. at 1, 7 ¶¶ 14-15, 9 ¶ 20; Hamm Am. Compl. at 2, 8-9 ¶¶ 14-15, 11 ¶ 20; Oct. Heath Report at 2, 5. Likely as a result of that cancer, Mr. Hamm experienced lymphadenopathy—the swelling of the lymph nodes in his body. *See* Hamm Compl. at 10 ¶ 24, 12-13 ¶ 31; Hamm Am. Compl. at 12 ¶ 24, 14-15 ¶ 30; Oct. Heath Report at 4. He also suffers from "severely compromised veins" as a result of using intravenous drugs for years. *See* Hamm Compl. at 6 ¶ 13, 13 ¶ 33; Hamm Am. Compl. at 8 ¶ 13; 15 ¶ 32; Oct. Heath Report at 3.

In the months leading up to his execution, Mr. Hamm brought an as-applied challenge to Alabama's lethal injection protocol. *See* Hamm Compl. at 2-3; Hamm Am. Compl. at 2. As part of that challenge, Mr. Hamm explained why the specific combination of his lymphatic cancer and compromised blood vessels ensured that application of Alabama's lethal injection protocol would put him through significant pain and suffering, and proposed that Alabama execute him instead via oral injection of lethal drugs. *See* Hamm Compl. at 2-3; Hamm Am. Compl. at 3-4; *see also* Oct. Heath Report at 5-6. Mr. Hamm, supported by his medical expert, contended that his veins are "severely compromised, making traditional peripheral intravenous access extremely difficult, if not impossible." Hamm Compl. at 2; Hamm Am.

Compl. at 3; *see* Oct. Heath Report at 3, 6-7; Report of Dr. Mark Heath at 4, *Hamm v. Dunn*, 2:17-cv-02083 (N.D. Ala., Jan. 16, 2018), ECF No. 14-5 ("Jan. Heath Report") ("[P]eripheral intravenous access in Mr. Hamm would be extremely difficult or impossible.").

Mr. Hamm further predicted that, because corrections personnel would be unable to access his peripheral veins, they would then attempt to access a central vein. Hamm Compl. at 18 ¶ 7; Hamm Am. Compl. at 22-23 ¶ 56; Oct. Heath Report at 5. That process involves accessing a larger vein located within deep tissue rather than close to the skin, and therefore requires specialized training and employment of an ultrasound machine to reliably locate the central vein. Mr. Hamm presented evidence that any attempt to access a central vein would be further complicated in his case because of his lymphatic cancer. *See* Hamm Compl. at 16 ¶ 41, 18 ¶ 7; Hamm Am. Compl. at 20 ¶ 48; 22 ¶ 56; Oct. Heath Report at 5-6. As he explained, each of the three central veins that is typically accessed in such a procedure—the internal jugular vein in the neck, the subclavian vein near the clavicle, or the femoral vein in the groin—is located near the body's largest clusters of lymph nodes. Hamm Compl. at 15 ¶ 40; Hamm Am. Compl. at 20 ¶ 47. Mr. Hamm's lymph nodes swell unpredictably, however, making central venous access more difficult and dangerous than it would be for others without his condition. Hamm Compl. at 2; Hamm Am. Compl. at 3; *see also* Hamm Compl. at 12-13 ¶¶ 31-32 (describing tumors on Mr. Hamm's chest, neck, and groin, and concluding that

Alabama "is not equipped to achieve venous access in Mr. Hamm's case"); Oct. Heath Report at 4, 7 (same). Mr. Hamm made clear that "establishing [central vein] access risks a bloody and excruciating experience" for him. Hamm Compl. at 2; Hamm Am. Compl. at 3.

Notwithstanding Mr. Hamm's explanation of the significant risks described above, his execution proceeded as scheduled. Mr. Hamm's predictions in his court filings came to pass. On February 22, 2018, the execution team attempted for several hours to find a vein that they could use to execute Mr. Hamm. *See* Hamm's Report and Motion for an Order at 2, *Hamm v. Dunn*, 2:17-CV-02083 (N.D. Ala., Feb 23, 2018), ECF No. 86 ("Hamm's Report"); David Brennan, *Doyle Lee Hamm: Botched Execution Death Row Prisoner Sues Alabama, Asks for Vacated Sentence*, Newsweek (Mar. 8, 2018), http://www.newsweek.com/botched-execution-death-row-prisoner-sues-alabama-asks-vacated-sentence-836127 ("[S]taff and medical personnel tried and failed to find suitable veins in [Hamm's] groin, feet and legs for 2.5 hours.").

First, the execution team tried and failed to access peripheral veins in Mr. Hamm's legs and ankles. Hamm's Report at 2. Two members of the IV execution team inserted needles repeatedly into Mr. Hamm's left and right legs and ankles in search of a vein. *Id.* at 2. Each attempt to access a vein involved penetrating his skin and then repeatedly probing the needle around in search of a vein, causing Mr. Hamm extreme pain. Expert Report of Dr. Mark Heath Re. Examination of Mr. Hamm at 2,

Hamm v. Dunn, 2:17-CV-02083 (N.D. Ala., Mar. 5, 2018), ECF No. 93 ("Mar. Heath Report"). The execution team even turned Mr. Hamm on his stomach as he lay on the gurney, slapping the back of his legs in their search for an accessible vein. Hamm's Report at 2. After about half an hour of this painful probing, the execution team left five visible puncture wounds on Mr. Hamm's legs and ankles. Mar. Heath Report at 2, 4; *see also* Hamm Compl. at 18 ¶ 6; Hamm Am. Compl. at 22 ¶ 55 (predicting that corrections personnel, in their unsuccessful attempts to access his peripheral veins, would "cause pain to Mr. Hamm by repeatedly attempting to insert needles into inaccessible veins).

Again as Mr. Hamm had predicted, other execution personnel then tried to access his central veins in a series of bloody and painful attempts. Corrections personnel repeatedly inserted needles into Mr. Hamm's right groin, causing him intense pain, as each insertion was accompanied by multiple probing movements. *See* Hamm's Report at 2; Mar. Heath Report at 2. Mr. Hamm felt the needles entering deep into his groin and twice experienced "sudden sharp deep retropubic pain." Mar. Heath Report at 2. The execution personnel had to request several new needles during the course of these attempts, and the process caused Mr. Hamm to bleed so severely that his blood soaked through a pad, which had to be replaced. *See id.* at 2. In all, the execution personnel left approximately six puncture wounds in Mr. Hamm's groin. *Id.* at 4.

Multiple news reports described the execution and in particular reported the "horrific" and "disturbing"

images of Mr. Hamm's resulting wounds and severe bruising. *See, e.g.*, Mark Hodge, *Wishing for Death*, The Sun (Mar. 7, 2018), https://www.thesun.co.uk/news/5746778/doyle-lee-hamm-botched-execution-needles-wounds-alabama; Debra Killalea, *Doyle Hamm: Botched Execution Leaves Inmate with Shocking Injuries*, News.Com.Au, (Mar. 8, 2018), https://www.news.com.au/lifestyle/real-life/news-life/doyle-hamm-botched-execution-leaves-inmate-with-shocking-injuries-photos/news-story/1e011a327491dc324e34ae753733c49d; Sandee LaMotte, *Death Row Inmate Sues After 'Botched' Execution*, CNN (Mar. 7, 2018), https://www.cnn.com/2018/03/07/health/alabama-execution-lawsuit/index.html. Mr. Hamm was in severe pain during the attempted execution, and was unable to walk unsupported afterward. Mar. Heath Report at 2-3. Following the failed execution attempt, Mr. Hamm developed a large hematoma (collection of clotted blood) in his right groin, urinated blood and, the next week, was diagnosed with infected lymph nodes in his right groin and right underarm. *Id.* at 3-4.

C. Alva Campbell

The failed execution of Alva Campbell also provides an illustrative example of the merit—and very predictable risk identified in—the types of as-applied challenges at issue in this case. Mr. Campbell, who passed away of natural causes on March 3, 2018, suffered from a multitude of serious medical conditions that required multiple daily oxygen treatments, prevented him from fully reclining without severe pain, and required the use an external colostomy bag. *See* Proposed

Amendment and Supplement to Complaint at 2-4, *In re Ohio Execution Protocol Litigation*, 2:11-cv-01016 (S.D. Ohio, Oct. 26, 2017), ECF No. 1350-1; Tracy Connor, *Alva Campbell, Inmate Who Survived Execution Try, Dies in Ohio Prison*, NBC News (Mar. 3, 2018), https://www.nbcnews.com/news/us-news/alva-campbell-inmate-who-survived-execution-try-dies-ohio-prison-n852961; Hannah Riley, *Alva Campbell Jr.'s Execution Halted Midway Through*, Huffington Post (Nov. 16, 2017), https://www.huffingtonpost.com/entry/alva-campbell-jrs-execution-halted-midway-through_us_5a0c96c3e4b06d8966cf3451. To name but a few conditions, Mr. Campbell suffered from pulmonary hypertension, emphysema, severe chronic obstructive pulmonary disease (COPD), coronary artery disease, and prostate cancer; he also had a total colectomy due to a gangrenous colon and hip replacement. *See* Medical Review, *In re Ohio Execution Protocol Litigation*, 2:11-cv-01016 (S.D. Ohio, Oct. 26, 2017), ECF No. 1353-1; Proposed Amendment and Supplement to Complaint at 2-3.

In light of his serious and chronic medical conditions, Mr. Campbell identified multiple ways in which Ohio's lethal injection execution method would cause him serious pain, and suggested the alternative of death by firing squad. He explained that recent medical tests performed by the Ohio Department of Rehabilitation and Correction demonstrated that the execution team would likely be unable to access his peripheral veins, "thereby subjecting [Mr. Campbell] to severe, needless physical and mental/psychological pain and

suffering" as the execution team attempted to access a vein. *See* Proposed Amendment and Supplement to Complaint at 5; *see also* Medical Review at 3-5 (noting difficulties finding IV access sites and Mr. Campbell's history of "extremely poor venous access").

At the execution itself, these problems occurred just as Mr. Campbell had predicted, and Mr. Campbell was spared severe pain only because the execution team was forced to abort the execution. On the day of the execution, the execution team spent over an hour examining Mr. Campbell's arms and legs in search of accessible veins. *See* Marty Schladen, *Alva Campbell: Ohio Execution Attempt Falls Apart on Gurney*, The Columbus Dispatch (Nov. 16 2017). After Mr. Campbell was finally taken to the death chamber and strapped to a gurney, the execution team spent another half hour searching for an accessible vein. *Id.* During that time, and as Mr. Campbell predicted, they inserted needles repeatedly into Mr. Campbell's arms and legs, including twice into Mr. Campbell's right arm, once in his left arm, and once in his left leg. *Id.* When the team inserted a needle in his leg, it appeared to observers that Mr. Campbell cried out in pain. *Id.* After failing to access Mr. Campbell's veins, the state called off the execution. Liam Stack, *Execution in Ohio Is Halted After No Usable Vein Can Be Found*, New York Times (Nov 15, 2017), https://www.nytimes.com/2017/11/15/us/ohio-execution-alva-campbell.html.

* * *

In each of these cases, the extreme suffering to which the inmate was subjected as a result of his specific medical condition was not just entirely foreseeable; it was entirely foreseen. Each of Messrs. McGuire, Campbell, and Hamm described in specific detail in their court filings the problems the state ultimately faced in attempting to execute them and the pain they eventually suffered as a result.

II. As-Applied Challenges Based on an Inmate's Specific Medical Condition Are Limited in Scope, Easily Evaluated, and Assist the State in Its Attempts to Conduct Humane Executions

A. As-Applied Challenges Address Specific, Predictable Risks of Severe Pain

1. As-applied challenges such as Mr. Bucklew's and those described above are grounded in the interaction between the inmate's unique medical condition and the state's particular execution protocol. They are therefore narrow, specific challenges that are not "attack[s] [on] . . . the death penalty itself" or even on "a particular means of execution." *Glossip*, 135 S. Ct. 2726, 2738 (2015). This type of challenge presumes that the death penalty can be constitutionally applied and even that the particular execution protocol at issue can be constitutionally applied in the typical case. *Cf. Baze*, 553 U.S. at 62 (plurality op.) ("Petitioners agree that, if administered as intended, th[e] procedure will result in a painless death.").

Notwithstanding the constitutionality of a state's method of execution generally, it is beyond question that in specific, unusual circumstances (such as Mr. Bucklew's), an inmate may have unique medical circumstances that make the state's particular protocol virtually certain to cause severe pain or suffering to that inmate. In such cases, the Eighth Amendment requires that the inmate have an opportunity to challenge that protocol to ensure that he or she is executed in a constitutional manner. *Cf. Baze*, 553 U.S. at 53 (plurality op.) ("It is uncontested that, failing a proper dose of sodium thiopental that would render the prisoner unconscious, there is a substantial, constitutionally unacceptable risk of suffocation from the administration of pancuronium bromide and pain from the injection of potassium chloride.").

For example, Mr. McGuire's as-applied challenge was not that Ohio's lethal injection protocol was unconstitutional *per se*, but that his specific "breathing issues," particularly the "proclivity toward obstruction" of his breathing, would cause *him* to experience "a terrifying inability to obtain a breath" for five minutes before the midazolam and hydromorphone that would be used on him would alleviate his awareness of the sensation. McGuire Op. at 3, 9. Inmates without his particular medical condition—which was well-documented from his treatment by prison medical staff, *see id.* at 3—would have no basis to challenge the protocol on those grounds.

Similarly, Mr. Bucklew raises the challenge that the blood-filled tumor caused by his extremely rare

medical condition, cavernous hemangioma, would obstruct his breathing and potentially rupture if he were executed pursuant to Missouri's lethal injection protocol, causing him to choke on his own blood. Pet. 2; *id.* at 8 (explaining that only two thousandths of a percent of the population suffers from cavernous hemangiomas in the oral cavity like Mr. Bucklew, making one of the primary impediments to executing him pursuant to Missouri's protocol "extremely rare"). The harm that Bucklew expects to endure if executed pursuant to the standard Missouri execution profile warrants unique treatment. Few, if any, other prisoners will have similar grounds to challenge the protocol.

2. The Eighth Circuit misunderstood Mr. Bucklew's claim, however, when it stated that his challenge "proceeds from the premise that [the lethal injection team] may not be qualified for the positions for which they have been hired." Pet. App. 17a. An as-applied challenge presumes that the professionals administering the execution are competent and would be qualified to execute the protocol for the typical prisoner. But where the inmate has alleged a specific medical condition that poses unique complications during the execution, specialized knowledge might be necessary to avoid extreme and unnecessary suffering.

For example, Mr. Hamm argued that, as a result of his severe medical problems, accessing his veins would "present a serious medical challenge" beyond the competence of execution personnel qualified only to set uncomplicated IVs. Hamm Am. Compl. at 15 ¶ 33. He predicted—correctly—that attempting such

access at the prison would "result in cruel and needless pain." *Id.* Likewise, Mr. Bucklew sought discovery into the expertise of the medical team that was assigned to his execution in order to evaluate whether, in light of their training level, their attempting to perform the execution on Mr. Bucklew, with his unique condition, would be very likely to inflict severe pain. Pet. 4, 8. Mr. Bucklew's rare affliction and the unique ways in which it causes suffering may be unknown to an execution team that is qualified for the ordinary case—in other words, qualified to place and monitor standard IVs in individuals who lack severe health conditions that will impact the IV placement and injection process. *See, e.g.*, *Baze*, 553 U.S. at 54 (plurality op.) (discussing expert testimony that mixing sodium thiopental is "not difficult at all" and has "instructions . . . on the package insert").

3. Because an as-applied challenge is premised on circumstances specific to the inmate himself, the evidence necessary to demonstrate a "substantial risk" of unconstitutional suffering, *id.* at 50 (plurality op.), is fundamentally different from that involved in a facial challenge.

A facial challenge alleges either that a lethal injection protocol is likely to cause pain in all cases, or that the protocol is likely to be administered improperly in any given case. Such a claim can be made about *any* potential execution, and the court must evaluate the state's procedures as a general matter to determine whether they are so inadequate that they create a substantial risk in any given execution. In contrast to that wide-ranging inquiry,

an as-applied challenge focuses on the concrete question whether the inmate's particular medical condition makes it "very likely" that applying the protocol to him will "result in needless suffering." *Glossip*, 135 S. Ct. at 2739.

To demonstrate a "substantial risk of serious harm," *Baze*, 553 U.S. at 50 (plurality op.), an inmate raising an as-applied challenge must proffer evidence of (1) a particular medical condition that (2) will interact with the state's execution protocol in identifiable, predictable ways that (3) render it "sure or very likely to result in" unconstitutional pain. *Glossip*, 135 S. Ct. at 2739. Thus, the inmate may not simply identify his medical condition; he must explain how that condition will interact with identified aspects of the particular execution protocol. In addition, the inmate must demonstrate that the resulting pain rises to the level of unconstitutional suffering. These elements together give rise to the special circumstances that must be addressed in order for the inmate to be executed humanely.

Thus, the "substantial risk" analysis will turn on an evaluation of the inmate's evidence of his medical condition, as well as evidence concerning the specific aspects of the lethal injection procedure that risk interacting with the inmate's condition to cause severe pain. Here, for instance, Mr. Bucklew provided extensive evidence of his medical condition, and identified specific elements in the lethal injection protocol that were likely to cause pain in light of his condition. He argued that the supine position of the gurney would cause his tumors to

descend into his throat, causing a choking sensation that he would be unable to alleviate once the anesthesia was administered; and that as he struggled to breathe, the tumors would rupture, causing him to choke on his own blood. He further argued that because his veins are compromised, the execution personnel's repeated attempts to insert the IVs would raise his blood pressure, increasing the risk that his tumors would rupture. Pet. 11.

B. As-Applied Challenges Are Administrable And Serve State Interests

As-applied challenges to lethal injection procedures are naturally limited in number and scope; they present issues that are easily adjudicable by courts; and they serve important state interests.

1. The specific medical evidence of the inmate's unique condition necessary to prove an as-applied claim distinguishes the nature, scope, and number of such claims from those of facial claims about the risk of errors in carrying out an execution protocol.

Challenges to an execution protocol based on an individual's known unique medical condition are necessarily limited in number. Inmates will likely suffer only infrequently from medical conditions that are both sufficiently severe and sufficiently closely related to the physical effects of the execution procedure to render that procedure "sure or very likely to result in needless suffering." *Glossip*, 135 S. Ct. at 2739; *see* Pet. 8. For example, Mr. McGuire presented evidence that his sleep apnea condition would interact with the specific dose of midazolam

that Ohio planned to use, thereby causing suffocation. And Mr. Hamm presented evidence that the swelling of his lymph nodes would make obtaining even a central IV line dangerous and likely unsuccessful. Notably, in the rare cases in which inmates have been able to demonstrate that their specific medical conditions would render identified aspects of the execution procedure very likely to cause severe suffering, those predictions have come true.[1]

Conversely, courts will be able easily to reject claims that do not identify a medical condition that will interact with specific aspects of the execution protocol to create a substantial risk. *See Bell Atlantic Corp. v. Twombly*, 550 U.S. 544 (2007). For instance, courts have typically rejected generalized claims that an inmate's veins may have been damaged by IV drug use, on the ground that such claims did not establish the existence of any unusual condition for which the protocol's safeguards would

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[1] As Mr. McGuire's medical expert explained, Mr. McGuire's suffering was easily predictable based on standard medical criteria. The expert told a reporter "he had used a standard, simple set of criteria [for his analysis before the district court] . . . to determine that McGuire's airway would likely become obstructed shortly after the medications were administered, causing him to slowly suffocate." The result was that "his body was slowly strangling itself from the inside, rather than causing him to drift off to sleep." Matt McCarthy, *What's the Best Way to Execute Someone?; Doctors Say Lethal Injection Is Often Botched and Horrific*, Slate Magazine (March 27, 2014).

not be sufficient. *See, e.g.*, *Raby v. Livingston*, 600 F.3d 552, 558 (5th Cir. 2010).

When as-applied challenges such as Mr. Bucklew's do go forward, they can be easily substantiated and evaluated. The relevant medical information on which the inmate bases his or her claim will be readily accessible to the state. Indeed, the correctional facility's medical system will undoubtedly be aware of the inmate's medical condition and possess treatment records. In addition, in many situations the state itself—via its correctional personnel—produced key medical reports concerning the effect of the inmate's health on the execution process. In Mr. Campbell's case, for example, one of the reports he pointed to as evidence that the state would be unlikely to establish venous access was produced by the Ohio Department of Rehabilitation and Correction. *See* Proposed Amendment and Supplement to Complaint at 5 ¶ 8. Similarly, Messrs. McGuire, Hamm, and Bucklew were all treated by doctors employed by the state while they were incarcerated. McGuire Op. 3 ("The evidence establishes that McGuire has had breathing issues since at least 2009, when prison doctors began to prescribe him inhalers."); Pet. App. 78a (noting "doctors employed or contracted with by the State of Missouri repeatedly warn of the expansion of [Mr. Bucklew's] vascular tumor, stating in September 2011 'this has been present for 20 plus years, but has increasingly grown larger and larger.'"); Hamm Am. Compl. at 8-11 ¶¶ 15-16, 18, 22-23 (describing detailed reports of Mr. Hamm's medical conditions from his prison medical records).

As a practical matter, therefore, an inmate will be unable to fabricate a condition or medical history or blindside the state with an unforeseeable challenge to its execution protocol that it does not have the basis to evaluate or resolve. If an inmate does attempt to do so, the state's own medical records will refute the claim.

2. From the courts' perspective, as-applied challenges present concrete, adjudicable disputes involving particular aspects of the legal injection protocol. Courts routinely adjudicate similar claims in other contexts, including claims that prison administrators have acted with deliberate indifference to an inmate's medical condition. *See, e.g.*, *Shaw v. Anderson*, No. 18-CV-140-JPS, 2018 WL 3243991 at *2 (E.D. Wis. July 3, 2018) (considering the claim that a prison's leather restraint practices could not constitutionally be applied to plaintiff in light of his arthritic condition). The expert testimony in such cases will be directed to discrete topics: the plaintiff's medical condition, and the extent to which that condition will cause unconstitutional suffering in the execution process.

In some cases, to be sure, discovery may be necessary to fully evaluate the ability of the state to execute the inmate in a manner that avoids serious harm beyond that experienced by the typical prisoner subjected to this same protocol. But that discovery can be tightly cabined. Because the inmate does not challenge the execution team's competence as a general matter, or the adequacy of the equipment and facilities in the typical case, discovery may be limited to the state's ability to

accommodate the inmate's specific condition in the execution process. Thus, Mr. Bucklew sought targeted discovery into "the skills and training of [execution personnel] to handle the risks that his rare condition would likely present." Pet. 17. The district court may properly limit discovery to the precise risks identified in the inmate's complaint.

In view of their narrow nature, as-applied challenges do not raise the concerns that this Court identified in *Baze* and *Glossip*. Because the court need not evaluate the state's execution procedure as a general matter, there is no danger that federal courts will end up serving as "boards of inquiry charged with determining 'best practices' for executions." *Baze*, 553 U.S. at 51 (plurality op.). Just as a court can evaluate a prisoner's claim that prison officials have acted with deliberate indifference to his medical condition without opining more generally on prison "best practices," so too can a court evaluate an as-applied lethal injection challenge without making broader pronouncements. Nor is there any danger that courts will "embroil [themselves] in ongoing scientific controversies beyond their expertise." *Glossip*, 135 S. Ct. at 2740. A court's resolution of a particular as-applied challenge will not set any nationwide precedent with respect to what measures are scientifically possible or appropriate as a general matter. Rather, each case will present merely the sort of competing expert testimony with respect to the risks posed by specific medical conditions that courts routinely resolve, including in malpractice and deliberate-indifference cases.

3. Finally, as-applied challenges like Mr. Bucklew's serve a variety of important interests. The inmate, the state, and—as the public outcry accompanying each execution and failed execution attempt that causes unnecessary and severe pain, such as those discussed *supra* Part I, demonstrates—society as a whole all have an interest in ensuring that executions are carried out in a humane and constitutional manner. *See, e.g.*, *Glossip*, 135 S.Ct. at 2732 (noting that states "sought a more humane way to carry out death sentences" and thus "eventually adopted lethal injection"); *Baze*, 553 U.S. at 62 (plurality op.) (noting Kentucky and 35 other states have "adopted a method of execution believed to be the most humane available" that "if administered as intended . . . will result in a painless death"). As-applied challenges such as Mr. Bucklew's advance that goal.

In particular, this type of challenge can facilitate a dialogue between the state and the inmate about how the inmate's unique medical condition may affect his execution. States are unlikely to have experience with executing anyone with a given unusual medical condition like Mr. Bucklew's, and may not initially be aware of how that condition may interact with their protocols. Moreover, even with some general knowledge of a certain ailment, states may not be aware of how their execution protocols may interact with a given inmate's particular condition. For example, Mr. Bucklew alleges that the tumors in his throat that are particularly problematic for him under the State's execution

protocol are unusual even for those who share his condition. Pet. 8.

Enabling the inmate to challenge the use of that protocol on the basis of his or her condition and support his or her claim with medical evidence provides the state an opportunity to evaluate the inmate's condition and concerns. This, in turn, initiates a dialogue between the inmate and the state, which affords the latter the opportunity to tailor the protocol to address the inmate's unique circumstances. In short, these types of as-applied claims provide the state the opportunity to evaluate the prisoner's concerns and avoid unconstitutionally cruel executions (or unconstitutionally cruel execution attempts). In avoiding causing an inmate unnecessary pain, states also can avoid turning executions into the undignified spectacle that results from execution attempts like those described in Part I, where the states' attempts to execute severely ill individuals went awry.

Courts have a vital role in this process. When the parties are unable to agree on protocol alterations necessary to avoid predictable suffering, an inmate will need to obtain judicial resolution of his claims. The executions of Messrs. McGuire, Campbell, and Hamm, *see supra* Part I, demonstrate that in some exceptional cases, an inmate's medical condition gives rise to an "objectively intolerable risk of harm," *Baze*, 553 U.S. at 50, 52 (plurality op.), beyond that "inherent in any method of execution," *Glossip*, 135 S. Ct. at 2733. In these unique cases, courts must adjudicate whether the state's "refusal to change its method" creates predictable danger of excruciating

pain that must be "viewed as 'cruel and unusual' under the Eighth Amendment." *Baze*, 553 U.S. at 50, 52 (plurality op.).

CONCLUSION

For the foregoing reasons, the judgment of the Court of Appeals should be reversed.

July 23, 2018 Respectfully submitted,

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BRIEF OF *AMICI CURIAE* PHARMACY, MEDICINE, AND HEALTH POLICY EXPERTS IN SUPPORT OF PETITIONER

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BRIEF OF *AMICI CURIAE* PHARMACY, MEDICINE, AND HEALTH POLICY EXPERTS IN SUPPORT OF PETITIONER

STATEMENT OF INTEREST[1]

Amici curiae are individuals with extensive experience as medical professionals, scientists, lawyers, and public servants. They have spent careers seeking to protect the public health and ensure the safety

[1] No party or counsel for a party authored this brief in whole or in part. No party, counsel for a party, or person other than *amici curiae*, their members, or counsel made any monetary contribution intended to fund the preparation or submission of this brief. Petitioner and Respondents filed blanket *amicus* consent letters.

and efficacy of pharmaceuticals in the United States. *Amici* and their current positions are listed in the Appendix to this brief.

Amici are participating because they are gravely concerned about the escalating public health risks that States have created by continuing to rely on lethal injection as their primary method of execution, even when they cannot lawfully obtain the drugs necessary to conduct a lethal injection in adherence with established protocols. The stakes could not be higher: States are willingly undermining the federal drug control regime; they are seeking execution drugs through unauthorized channels and importing unapproved products or ingredients from overseas suppliers who are not subject to U.S. inspection or oversight; they are relying on pharmacy compounding to produce a finished product even though compounding pharmacies are virtually unregulated in that regard; and they are actively violating the rules laid out in federal law for registration, importation, distribution, and security controls to prevent abuse and diversion. Each of these facts is problematic individually from a public health perspective. Collectively, they could lead to a public health crisis.

It is of the utmost importance that the Court clarify that its holding in *Glossip* v. *Gross*, 576 U.S. ___, 135 S. Ct. 2726 (2015), does not authorize States to violate federal and state laws in their efforts to conduct lethal injections. The federal and state laws at play are essential to protecting public health by ensuring the safety and efficacy of drugs, and an opinion that sanctions States' willful noncompliance with or secret avoidance of these laws will further

exacerbate the risks to patients and the broader public.[2]

SUMMARY OF ARGUMENT

There can be no real debate that lethal injection as it exists today poses numerous difficulties as a matter of law and medicine. One major consequence of these difficulties is that States have created serious public health risks in their efforts to conduct lethal injections. Unable to obtain the drugs for established protocols through lawful means, States have resorted instead to violating laws and regulations essential to ensuring the safety and effectiveness of pharmaceutical products and to protecting the public health. And they have enacted secrecy laws that authorize them to mask additional potentially unlawful activities and keep the public from knowing—or holding them accountable for—their actions.

The two primary federal laws at issue—the Federal Food, Drug, and Cosmetic Act (FDCA), 21 U.S.C. § 301 *et seq.*, and the Controlled Substances Act (CSA), 21 U.S.C. § 801 *et seq.*—broadly protect public health in this country. They prevent unsafe, ineffective, improperly labeled, sub-standard, contaminated, adulterated, misbranded, and counterfeit drugs from entering or being distributed in the United States, and they make unlawful the diversion and misuse of particularly dangerous and addictive drug products.

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[2] *Amici* take no position with respect to capital punishment in the United States. Nor do they take a position on the alternative method of execution that Petitioner proposes.

As States have changed their execution protocols to expand the drugs and combinations of drugs that may be used for lethal injection, a number of the new entrants to execution protocols are dangerous drugs of abuse that are controlled under the CSA. These drugs include Fentanyl, Pentobarbital, and Hydromorphone, all Schedule II controlled substances.

As a result of the FDCA and the CSA, the pharmaceutical supply chain is carefully regulated from ingredients to finished product. But States have circumvented this carefully and extensively regulated supply chain to acquire drugs for use in lethal injection. They use overseas sellers, unlicensed middlemen, and secret compounding pharmacies. The result is twofold: it undermines federal laws that protect the public health, and it circumvents pharmaceutical companies' ability to ensure the safety and effectiveness of drugs in the supply chain.

In addition, an increasing number of States have enacted secrecy laws for the purpose of shielding from public and regulatory view how they acquire, prepare, and use illegal—and illegally obtained—drugs in lethal injections. These laws may facilitate execution by lethal injection, but they do so at an extremely high cost: they undermine key federal laws protecting the integrity of the pharmaceutical supply chain and public health.

The risks of all of this behavior by States in their pursuit of drugs to use for lethal injections are not merely theoretical. Drugs obtained by States ostensibly for lethal injection have been diverted from that

use and have reached the patient population.[3] Similarly, patients have been exposed to substandard drugs compounded at pharmacies operating under the cover of "execution secrecy" laws that effectively place the compounders beyond the scope of regulation by federal and state authorities.

This behavior by States puts patients and the public at risk. It cannot be condoned by this Court. Respondents' proposed reading of *Glossip* would have the practical impact of endorsing lethal injection as the only available method of carrying out capital punishment and would exacerbate these risks. It would also increase the likelihood of substandard drugs making their way into the stream of commerce via illicit and hidden pathways, and it would undermine the carefully regulated system of drug distribution that exists to protect public health. This case presents the Court an opportunity to make clear that States may not evade compliance with laws intended to safeguard public health in the pursuit of lethal injections.

ARGUMENT

When the original lethal injection protocol came into existence in 1977, it consisted of three drugs—Sodium Thiopental (an anesthetic), Pancuronium Bromide (a paralytic agent), and Potassium Chloride (which causes cardiac arrest)—that were all readily

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[3] *See Beaty* v. *FDA*, 853 F. Supp. 2d 30, 42 & n.8 (D.D.C. 2012), *aff'd in part, vacated in part sub nom. Cook* v. *FDA*, 733 F.3d 1 (D.C. Cir. 2013).

available for ordinary medical use.[4] Over time, however, that changed. By 2011, another drug—Propofol—had almost entirely replaced Sodium Thiopental in clinical settings.[5] States, in response, began adding new drugs to their execution protocols. The Companies who the U.S. Food and Drug Administration (FDA) had approved to manufacture and distribute the newly added drugs began including provisions in their sales contracts that would prevent the drugs from being used in executions.[6]

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[4] *State by State Lethal Injection*, DEATH PENALTY INFO. CTR., https://deathpenaltyinfo.org/state-lethal-injection (last visited July 23, 2018).

[5] Sodium Thiopental, which was first used in humans in 1934, was replaced by Propofol on the World Health Organization's List of Essential Medicines in 2011. *See* World Health Org., WHO Model List of Essential Medicines 1 (17th ed. March 2011), *available at* http://apps.who.int/iris/bitstream/handle/10665/70640/a95053_eng.pdf?sequence=1. Abbott Laboratories stopped marketing its sodium thiopental product in 2001 and withdrew its New Drug Application (NDA). *See* Letter from Steven Porter, Dir., Los Angeles Dist. Office, FDA 5 n.5 (Apr. 20, 2017), *available at* https://www.fda.gov/downloads/AboutFDA/CentersOffices/OfficeofGlobalRegulatoryOperationsandPolicy/ORA/ORAElectronicReadingRoom/UCM555224.pdf. In 2011, the sole remaining manufacturer of sodium thiopental also discontinued its production and distribution of the drug. Press Release, Hospira, Hospira Statement Regarding Pentothal (Sodium Thiopental) Market Exit (Jan. 21, 2011), *available at* https://www.evaluategroup.com/Universal/View.aspx?type=Story&id=235611.

[6] Erik Eckholm, *Pfizer Blocks the Use of Its Drugs in Executions*, N.Y. TIMES (May 13, 2016), https://www.nytimes.com/2016/05/14/us/pfizer-execution-drugs-lethal-injection.html; Eric Palmer, *Johnson & Johnson Objects to a Janssen-Developed Drug's Use in Executions*, FIERCEPHARMA (Aug. 22, 2017, 8:55

Some States reacted to that by looking to alternative sources of these drugs with little regard for the legality of the transaction or the quality of the drug product.[7] Certain States thus moved to a world in which they treat the pursuit of lethal execution as sanctioning violations of federal laws that protect the health of U.S. patients by safeguarding the safety and effectiveness of drug products in the United States.

States' continued reliance on lethal injection as their primary method of execution when they cannot lawfully obtain the drugs necessary for established protocols has created serious public health risks. Many States are undermining the drug control regime, seeking execution drugs through unauthorized channels, importing unapproved products or ingredients from overseas suppliers not subject to U.S. inspection or oversight, obtaining finished products from compounding pharmacies not regulated in that regard, and are acting outside the bounds of federal law restrictions on registrations, importation, distribution, and security controls to prevent abuse and diversion. It is critical from a public health perspective that the Court make clear that States may not—in their pursuit of lethal injection—

AM), https://www.fiercepharma.com/pharma/j-j-objects-to-a-drug-developed-by-janssen-for-use-execution.

[7] Lincoln Caplan, *The End of the Open Market for Lethal Injection Drugs*, THE NEW YORKER (May 21, 2016), https://www.newyorker.com/news/news-desk/the-end-of-the-open-market-for-lethal-injection-drugs; John Schwartz, *Seeking Execution Drug, States Cut Legal Corners*, N.Y. TIMES (Apr. 13, 2011), https://www.nytimes.com/2011/04/14/us/14lethal.html.

operate outside of the carefully constructed federal regulatory system that governs the manufacturing and distribution of pharmaceutical products, including controlled substances.

I. FEDERAL LAW PROTECTS THE INTEGRITY OF THE U.S. DRUG SUPPLY CHAIN.

By design, federal law creates a "closed system" of drug distribution. This pervasively and strictly controlled system is intended to ensure that drugs distributed in the U.S. are safe and effective by safeguarding the integrity of the drug supply chain and mitigating the risk of dangerous drugs being diverted and misused.

The FDCA and its implementing regulations establish mandatory requirements for drug approval and labeling, manufacturing quality, and supply chain security. Congress assigned primary responsibility for administering and enforcing the FDCA to the FDA.[8] Among other things, the FDA is responsible for rigorously reviewing data and information regarding drugs to ensure their safety and efficacy, as well as the truthfulness and adequacy of their labeling, before they are permitted to enter the market.[9] The agency also has extensive authority over drug products introduced into distribution in the U.S., including with regard to how drugs are manufactured and distributed. The U.S. drug supply chain is increasingly global, and the FDA's responsibility for addressing the growing complexities and threats,

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[8] *See* 21 U.S.C. § 393(a)-(b)

[9] *See id.* §§ 355, 393(b).

such as diversion, counterfeit drugs, and importation of unapproved or otherwise substandard drugs has never been more important.[10]

To that end, Congress amended the FDCA by enacting the Drug Supply Chain Security Act (DSCSA), Pub. L. No. 113-54, tit. II, 127 Stat. 599 (2013), a few years ago to more tightly regulate the supply chain and thereby address unsafe, ineffective, and counterfeit drugs. The DSCSA establishes a federal system for tracing prescription drug products through the pharmaceutical supply chain and requires trading partners to provide, receive, and maintain certain product and distribution information.[11]

The law requires full supply chain traceability—from the drug manufacturer all the way through to the entity that dispenses the drug to a patient. By doing so, the law strengthens the integrity of the U.S. drug supply chain and reduces the likelihood of counterfeit or unapproved drugs being distributed in the U.S.

As stated by FDA Commissioner Scott Gottlieb, M.D., at a February 2018 public meeting on enhanced drug distribution security:

> Patient safety is at the core of FDA's public health mission; and ensuring reliable patient

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[10] *Drug Supply Chain Integrity*, FDA, https://www.fda.gov/Drugs/DrugSafety/DrugIntegrityandSupplyChainSecurity/default.htm (last updated June 13, 2017).

[11] *See* 21 U.S.C. § 360eee-3(b). The DSCSA identifies and defines the types of entities in the drug supply chain, *i.e.*, manufacturers, repackagers, wholesale distributors, third-party logistics providers, and dispensers. *Id.* § 360eee.

> access to safe and effective medicines requires maintaining a closed, secure U.S. drug supply chain for the distribution and delivery of finished drug products.
>
> Every link in that chain must be secure: From the moment finished drug products leave manufacturing facilities to final delivery to pharmacies or providers' offices where medicines are ultimately dispensed to patients.[12]

The CSA and its implementing regulations is an additional layer of federal law applicable to the regulation of controlled substances. The CSA's focus, in relevant part, is on preventing these substances from being diverted for illegal purposes.[13] The CSA is important here, because numerous drugs that have been used or considered for use in lethal injections are controlled substances under the CSA, including Sodium Thiopental, Midazolam, Fentanyl, Hydromorphone, Pentobarbital, Amobarbital, Secobarbital, and Diazepam.[14]

The CSA generally requires anyone who handles controlled substances to register with the U.S. Drug Enforcement Administration (DEA).[15] Registrants

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[12] Scott Gottlieb, M.D., Comm'r, FDA, Remarks at the FDA Public Meeting on Enhanced Drug Distribution Security under the Drug Supply Chain Security Act (DSCSA) (Feb. 28, 2018), *available at* https://www.fda.gov/NewsEvents/Speeches/ucm598719.htm.

[13] Electronic Prescriptions for Controlled Substances, 75 Fed. Reg. 16236, 16237 (Mar. 31, 2010); *see* 21 C.F.R. §§ 1300–1399.

[14] 21 U.S.C. § 812; 21 C.F.R. § 1308.11–15.

[15] 21 U.S.C. §§ 878(a), 880.

are required, among other things, to "provide effective controls and procedures to guard against theft and diversion of controlled substances."[16]

By establishing a "closed" drug distribution system, the FDA and DEA oversee the federal system to protect the public from the risks posed by potentially unsafe or ineffective drugs obtained from unverified sources and from drugs of abuse.[17]

Permitting drugs to be imported, compounded, and distributed in ways that effectively shield them from the scrutiny mandated in the governing federal-law framework presents an increased risk of products that are impure and unsafe. Even worse, there is no guarantee that drugs obtained by circumventing the federal system of verification and control are even the drugs they purport to be.

Once an illicit supply channel is established with a supplier, it is extremely challenging to control which drug products move through it, and which customers they reach, particularly in a context where the FDA, DEA and state boards of pharmacy are prevented from performing their usual regulatory duties because of secrecy.[18]

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[16] 21 C.F.R. § 1301.71(a).

[17] Letter from William K. Hubbard, Assoc. Comm'r for Policy & Planning, FDA, to Gregory Gonot, Deputy Attorney Gen., State of California, (Aug. 25, 2003), *available at* https://web.archive.org/web/20170603210131/http://fda.gov/drugs/drugsafety/ucm179893.htm ("Hubbard Letter").

[18] Prashant Yadav et al., *When Government Agencies Turn to Unregulated Drug Sources—Implications For the Drug Supply Chain & Public Health Are Grave*, J. Am. Pharmacists Ass'n

States and their departments of correction are not exempt from the mandatory responsibilities and restrictions set forth in the FDCA and CSA and their implementing regulations. Actions to circumvent or undermine the federal system by obtaining drugs outside of the closed system through alternative and illegal pathways are violations of the FDCA and CSA and expose the public to risk.

II. STATES ARE CIRCUMVENTING THE EXTENSIVE FEDERAL PHARMACEUTICAL REGULATORY SYSTEM THAT PROTECTS PUBLIC HEALTH.

In their efforts to obtain drugs to carry out lethal injections States have blatantly acted outside the bounds of the governing federal regulatory system. They have also sought to undermine contractual controls that companies have put in place to protect drugs from being diverted and misused.[19] And in so doing, they have ignored repeated warnings from companies that buying drugs outside of the authorized distribution channels creates dangers for public health and puts patients at risk:

> [T]he use of the medicines for lethal injections creates a public-health risk by undermining the safety and supply of lifesaving medicines. Improperly procured medicines from unauthorized sellers are at risk of adulteration or chemical change * * * [and could]

(forthcoming 2018), *available at* https://www.japha.org/article/S1544-3191(18)30336-4/pdf.

[19] Eckholm, *supra* note 6.

> place patients * * * across the country at risk."[20]

The lengths to which State boards of correction have gone to acquire drugs for lethal injection is well illustrated by the allegations made by Alvogen in recently filed litigation.[21] Alvogen's complaint alleges, *inter alia*, misrepresentation, fraud, deception, subterfuge, and false pretenses by the Nevada Department of Corrections in acquiring a supply of Alvogen's Midazolam.

States' actions have serious consequences for consumers and patients, who face an enhanced risk of illegal and substandard drugs being diverted into the otherwise legitimate distribution system.

A. States Have Violated The FDCA By Importing Unapproved Drugs For Use In Executions.

As noted, the FDCA creates a " 'closed' drug distribution system, which helps ensure that the domestic drug supply is safe and effective."[22] It contains a rigorous drug approval process that is intended to ensure that drugs distributed in the United States

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[20] Motion for Leave to File Amicus Brief, Ex. C at 4 (Amicus Brief of Fresenius Kabi USA, LLC & West-Ward Pharms. Corp.), *State* v. *McKesson Medical-Surgical Inc.*, No. CV-17-317 (Ark. Apr. 20, 2017).

[21] *See generally* Complaint For Emergency Injunctive Relief & Return of Illegally Obtained Property, *Alvogen Inc.* v. *Nevada State Dep't of Corr.*, No. A-18-777312-B (Nev. Clark Cty. Dist. Ct. July 10, 2018) ("*Alvogen* Compl.").

[22] Hubbard Letter, *supra* note 17.

are safe and effective.[23] As the FDA itself has explained, the FDA has "long taken the position that consumers are exposed to a number of risks when they purchase drugs from foreign sources" that are not inspected by the FDA and approved to manufacture products for importation, because those sources may, *inter alia*, "dispense expired, subpotent, contaminated or counterfeit product, the wrong or a contraindicated product, an incorrect dose, or medication unaccompanied by adequate directions for use."[24]

Notwithstanding the FDCA's clear prohibition on importing of unapproved drugs from foreign sources, States have done just that to obtain drugs for lethal injections. And this has not been a one-time occurrence, but a repeated scenario. The result is that States are undermining the closed drug distribution system and exposing patients and the wider American public to harm.

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[23] *The FDA's Drug Review Process: Ensuring Drugs Are Safe & Effective*, FDA, https://www.fda.gov/drugs/resourcesforyou/consumers/ucm143534.htm (last updated Nov. 24, 2017).

[24] *Canadian Prescription Drug Importation: Is There a Safety Issue?: Hearing Before the Subcomm. on Human Rights and Wellness of the H. Comm. on Government Reform*, 108th Cong. 24 (2003) (statement of William K. Hubbard, Associate Commissioner for Policy & Planning, FDA); *see Unapproved Prescription Drugs: Drugs Marketed in the United States That Do Not Have Required FDA Approval*, FDA, *available at* http://www.fda.gov/Drugs/GuidanceComplianceRegulatoryInformation/EnforcementActivitiesbyFDA/SelectedEnforcementActionsonUnapprovedDrugs/default.htm ("The Agency has serious concerns that drugs marketed without required FDA approval may not meet modern standards for safety, effectiveness, quality, and labeling.").

In 2010, for example, ten states acquired supplies of Sodium Thiopental ("Thiopental") from Dream Pharma, a pharmacy in England apparently operating out of a back room in a driving school.[25] The drug product was not FDA-approved and its importation was illegal. But the states acted covertly, outside of the protections provided by a closed system supply chain, and the products entered the United States despite their unapproved status.

Although an execution typically requires just 2-5 grams of Thiopental, Dream Pharma shipped over one kilogram to the United States.[26] Given the large quantities imported (these quantities were enough for 200 to 500 executions) and the price at which the drug was sold (in some instances more than 35 times the market price for the drug at the time), it appears that Dream Pharma was shipping more Thiopental than required for use in lethal injection.[27] And that

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[25] Schwartz, *supra* note 7; Jim Edwards, *Drug Company? Driving School? It's All the Same in the Lethal Injection Business*, CBS NEWS: MONEYWATCH (Jan. 6, 2011, 6:09 PM), https://www.cbsnews.com/news/drug-company-driving-school-its-all-the-same-in-the-lethal-injection-business/.

[26] *See* ACLU of Northern California, *Timeline for California's "Secret Mission" for Lethal Injection Drugs* (Aug. 11, 2011), https://www.aclunc.org/blog/timeline-california%E2%80%99s-secret-mission-lethal-injection-drugs; Carol Williams, *California Now Has Enough Drugs to Execute 175 Death Row Inmates*, L.A. TIMES (Dec. 7, 2010, 12:38 PM), http://latimesblogs.latimes.com/lanow/2010/12/drugs-for-state-executions-came-from-arizona-and-britian-prison-officials-say.html.

[27] *See* Management Sciences for Health, International Drug Price Indicator Guide A-114 to A-115 (Julie E. Frye, ed. 2009), http://mshpriceguide.org/wp-content/uploads/2016/06/

is exactly what happened. Quantities of the unapproved Thiopental were sold to at least one pharmacy servicing the general public and "substantial quantities" of the medicine went "missing" from San Quentin prison in California. It turned out that the person responsible for maintaining custody of the drug at that California prison was an illicit drug smuggler.[28]

State departments of corrections have also sought to purchase unapproved Thiopental from suppliers in India. In one instance, a company was forced to issue a product recall because the company could not guarantee the drugs' safety because the drugs had been "illegally diverted from the company's supply chain" and were potentially "unsafe."[29] Another potential source was a small drug supplier operating out of a mall in India, which was shut down shortly thereafter for illegal online sales of psychotropic

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MSH-International-Drug-Price-Indicator-Guide-2009.pdf; Andrew Welsh-Huggins, *FDA Has Helped Two States Obtain Anesthetic Used in Executions*, WASH. POST (Jan. 12, 2011, 8:09 PM), http://www.washingtonpost.com/wp-dyn/content/article/2011/01/12/AR2011011205616.html.

[28] *Beaty*, 853 F. Supp. 2d at 34-35, 42 n.8.

[29] Chris McDaniel & Tasneem Nashrulla, *Texas Almost Bought Execution Drugs From 5 Men In India Who Were Accused Of Selling Illegal Party Pills*, BUZZFEED NEWS (Jan. 26, 2017 6:09 PM), https://www.buzzfeed.com/chrismcdaniel/texas-almost-bought-execution-drugs-from-5-guys-overseas-who?utm_term=.nherx7aD#.xxRMq8PD; *Company Recalls Nebraska Lethal Injection Drug*, KEARNEYHUB (May 10, 2012), https://www.kearneyhub.com/news/local/company-recalls-nebraska-lethal-injection-drug/article_f5635256-9a9e-11e1-9a66-0019bb2963f4.html.

drugs and opioids to consumers in the United States.[30]

These situations highlight the broader problem: once a State or other entity finds an illicit supply channel, controlling that supply channel and tracking where the products are used is extremely difficult—if not impossible.[31]

B. States Have Obtained Compounded Drugs Of Questionable Quality From Unlicensed And Secret Pharmacies.

States' increasing reliance on compounding pharmacies is exacerbating the public health risks. Compounded lethal injection products may be made from illegally imported bulk drug substance and are not reviewed by the FDA for safety, effectiveness, or quality.[32] The FDA has on numerous occasions expressed concern about the risks of poor compounding practices, including product contamination, lack of sterility, and product that is sub- or super-potent.

Monitoring and oversight of pharmacy compounding is limited in many states.[33] And in a context in which drug secrecy laws (discussed more below) put such activities outside the view of state and federal

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[30] McDaniel & Nashrulla, *supra* note 29.

[31] Yadav et al., *supra* note 18.

[32] *Compounding & the FDA: Questions & Answers*, FDA, https://www.fda.gov/drugs/guidancecomplianceregulatoryinformation/pharmacycompounding/ucm339764.htm.

[33] *Id.*

regulators alike, the risks are amplified. The resulting "regulatory vacuum" endangers public health.[34]

History has born this out already. In 2012, a drug safety crisis arose from products compounded at the New England Compounding Center (NECC). Notably, NECC operated in the open—unlike pharmacies that compound lethal injection products behind the cloak of state secrecy laws. And even so, more than 750 people in 20 states developed fungal infections from injectable products compounded at NECC, and more than 60 people died.[35] Compounding pharmacies selected by states to make execution drugs have repeatedly been found to be in violation of both state and federal regulations governing the safe compounding and distribution of medicines, including controlled substances. Shielded from scrutiny of federal agencies and exempted from proper regulation by state regulators, these pharmacies have in some instances continued to provide drugs for American consumers for many months before the dangers their poor practices created for public health came to light.

For example, an Oklahoma compounding pharmacy called The Apothecary Shoppe is thought to have provided or offered compounded medicines for executions in three States, despite not being licensed to dispense or distribute controlled substances in any of them.[36] After its activities became known, the FDA

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[34] Yadav et al., *supra* note 18.

[35] *Compounding & the FDA: Questions & Answers*, FDA, *supra* note 32.

[36] Ed Pilkington, *Tulsa Pharmacy Faces Questions Over Lethal Drug to be Used in Execution*, THE GUARDIAN (Jan. 28,

and the Oklahoma Board of Pharmacy conducted an investigation that ultimately uncovered a whopping 1,892 violations and led to enforcement action on the licenses of the pharmacy and head pharmacist.[37]

These risks are increased when States seek to have drugs compounded that are not commercially available, such as Pentobarbital, a Schedule II controlled substance and known drug of abuse.[38] Pentobarbital is listed in twenty-one States' execution protocols,[39] and a number of States have sought to use compounded Pentobarbital in executions. Pharmacists have noted that the active ingredient for Pentobarbital is not available domestically and warned that anyone compounding Pentobarbital for executions is likely doing so "using ingredients procured on the black market."[40] To reiterate the obvious, illicit

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2014, 5:53 PM), https://www.theguardian.com/world/2014/jan/28/tulsa-compounding-pharmacy-lethal-injection-execution.

[37] Chris McDaniel, *Pharmacy That Mixed Executions [sic] Drugs Is Being Sold After Admitting Numerous Violations*, BuzzFeed News (Apr. 21, 2016, 10:45 PM), https://www.buzzfeed.com/chrismcdaniel/pharmacy-that-mixed-execution-drugs-is-being-sold-after-disc?utm_term=.kcopbMDX4#.ycDLE46a1.

[38] *See* Yadav et al., *supra* note 18; Letter from Dr. Philip D. Hansten et al. to Timothy Lockwood, Chief, Regulation & Policy Mgmt. Branch, Cal. Dep't of Corr. & Rehab. (Aug. 14, 2017), *available at* http://lethalinjectioninfo.org/wp-content/uploads/2018/06/2017_08_13_PUB-Comment-on-California27s-Lethal-Injection-Protocol-Amendme....pdf.

[39] *Current State-By-State Execution Protocols*, Lethal Injection Info. Ctr., http://lethalinjectioninfo.org/lethal-injection-protocols/ (last visited July 23, 2018).

[40] Hansten et al., *supra* note 38, at 1.

supply channels involve risks that drug products may be substandard, counterfeit or contaminated.

By seeking drugs through unauthorized channels and tasking lightly regulated compounding pharmacies with compounding drugs that are not commercially available, States are putting the general public at risk of receiving unsafe drugs that make their way into the public stream of commerce.

C. States Have Breached Supply Chain Controls And Misled Healthcare Providers In Efforts To Obtain Drugs For Lethal Injection

Federal law requires manufacturers and distributors of controlled substances to perform specific activities to ensure the safety, integrity, and security of the U.S. pharmaceutical supply chain and to protect the public from harm. One of those requirements is to have a mechanism for detecting suspicious orders of controlled substances—which when they occur, must be reported to the DEA.[41] Another is to build systems to identify and trace certain prescription drugs as they are distributed in the United States.[42] These requirements, and many others like them, are intended to enhance the FDA's ability to protect consumers from exposure to drugs that may be counterfeit, stolen, contaminated, or otherwise harmful. They also seek to improve detection and removal of potentially dangerous drugs from the

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[41] 21 U.S.C. § 828; 21 C.F.R. § 1301.74; *id.* pt. 1305.

[42] *See* Drug Supply Chain Security Act, Pub. L. No. 113-54, tit. II, 127 Stat. 599.

pharmaceutical supply chain to protect public health across the country.

Manufacturers and distributors of controlled substances can effectively perform these activities only with visibility over their supply chains from start to finish. But States, endeavoring to procure execution drugs that are restricted for sale for this purpose, have resorted to secrecy and surreptitious means to divert drugs outside of authorized supply channels. One company characterized these actions as "subterfuge."[43]

Three examples provide a flavor of how this plays out. In Ohio, officials wanted to purchase Pentobarbital, a Schedule II controlled substance, for use in executions. Because the manufacturer had prohibited any sale of the drug to prisons for such use, state officials used the Ohio Department of Mental Health as the purchaser.[44] A state official went so far as to advise his colleague in the Ohio Department of Mental Health:

> When you call them to see if they will sell to us make sure you say we are the Department of Mental Health do not mention anything about corrections in the phone call or what we use the drug for.[45]

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[43] *Alvogen* Compl., *supra* note 21, ¶¶ 5-123; Response to Emergency Petition for Immediate Writ of Mandamus at 21, *State* v. *McKesson Medical-Surgical Inc.*, No. CV-17-317 (Ark. Apr. 20, 2017).

[44] *See* David Jolly, *Danish Company Blocks Sale of Drug for U.S. Executions*, N.Y. TIMES (July 1, 2011), https://www.nytimes.com/2011/07/02/world/europe/02execute.html.

[45] Caplan, *supra* note 7.

In Texas, officials used the DEA certificate of registration of a defunct hospital to procure execution drugs and wrote a false prescription for the drug made in the name of the warden.[46] They were later accused of misleading sellers about the purpose for which they were ordering execution drugs.[47]

And in Louisiana, the Department of Corrections ordered Hydromorphone, a Schedule II controlled substance, for use in an execution, but led the supplying hospital to believe the drug was being ordered for a patient. The hospital would not have filled the order had it known the true purpose.[48]

Companies have repeatedly warned of the risks this kind of behavior poses to public health. For example, last year, pharmaceutical distributor McKesson sued the State of Arkansas and Arkansas Department of Corrections for using "false pretense, trickery, and bad faith" in purchasing Vecuronium Bromide for use in executions.[49] McKesson alleged, among other

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[46] Letter from Maurie Levin, Adjunct Professor, Univ. of Texas Sch. of Law, & Sandra Babcock, Clinical Professor, Nw. Univ. Sch. of Law, to Hon. Eric H. Holder, Jr., Attorney Gen., U.S. Dep't of Justice (Mar. 30, 2011), *available at* http://standdown.typepad.com/LI-Foster-LtrToHonEricHolder.pdf.

[47] Eric Nicholson, *Texas, Fresh Out of Pentobarbital, Begins Experimenting With Execution Drugs* (Oct. 2, 2013, 3:40 PM), http://www.dallasobserver.com/news/texas-fresh-out-of-pentobarbital-begins-experimenting-with-execution-drugs-7125883.

[48] Della Hasselle, *In Rush to Find Lethal Injection Drug, Prison Officials Turned to a Hospital*, THE LENS (Aug. 6, 2014, 5:17 PM), https://thelensnola.org/2014/08/06/lake-charles-memorial-hospital-sold-execution-drug-to-state/.

[49] Response to Emergency Petition for Immediate Writ of Mandamus, *supra* note 43, at 21; *see also* Alan Blinder, *Arkan-*

things, that the Department of Corrections purchased the products under the medical license of an Arkansas physician and had the products shipped to a healthcare facility, misrepresenting "that the order was placed at the request of or for the benefit of the physician and would be used for legitimate medical purpose."[50]

Two other companies whose drugs Arkansas had obtained for use in executions submitted a brief in support of McKesson, stating that "[t]he use of their medicines for lethal injections violates contractual supply-chain controls that the Manufacturers have implemented."[51] The companies warned of grave public health risks associated with the use of these medicines in executions:

> [T]he use of the medicines for lethal injections creates a public-health risk by undermining the safety and supply of lifesaving medicines. Improperly procured medicines from unauthorized sellers are at risk of adulteration or chemical change * * * [and could] place patients * * * across the country at risk.[52]

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sas Judge Moves to Block Executions, N.Y. TIMES (Apr. 14, 2017), https://www.nytimes.com/2017/04/14/us/arkansas-is-accused-of-deception-in-buying-drug-used-in-executions.html.

[50] Verified Complaint for Emergency Injunctive Relief & Return of Illegally Obtained Products ¶ 13, *McKesson Medical-Surgical Inc.* v. *State*, No. 60CV-17-1921 (Ark. Pulaski Cty. Cir. Ct. Apr. 14, 2017); *see also id.* ¶¶ 34, 56.

[51] Amicus Brief of Fresenius Kabi USA, LLC & West-Ward Pharms. Corp., *supra* note 20, at 1.

[52] *Id.* at 4.

The Court's opinion should make clear that nothing in *Glossip* condones such dangerous behavior.

D. States' Secrecy Laws Hide Potentially Illegal And Unsafe Conduct From Scrutiny.

An increasing number of States[53] have implemented laws or policies commonly referred to as "secrecy laws" that shield their execution drug procurement practices from public view and from scrutiny by regulatory authorities.[54]

Generally, these laws allow state officials to refuse to disclose information about the nature and source of drugs used in executions. This undermines companies' abilities to assure the integrity of their supply chains and the safety and efficacy of drugs, as well as the ability of agencies tasked with regulating the safety and effectiveness of drug products and of the supply chain.

Under the typical terms of many of these laws, pharmacies and other "suppliers" providing medicines for use in executions are defined as "members of the execution team" and their identities are hidden from the public and state and federal regulators. In some states, anyone who discloses the identity or identifying information about a supplier of execution

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[53] Currently, 19 states have enacted such laws: Alabama, Arizona, Arkansas, Florida, Georgia, Idaho, Indiana, Mississippi, Missouri, Nebraska, North Carolina, Ohio, Oklahoma, Pennsylvania, South Dakota, Tennessee, Texas, Virginia, and Wyoming.

[54] *See* LETHAL INJECTION INFO. CTR., RESPECTING CORPORATE CONTRACTS: STATE-BY-STATE RISK INDEX (July 2018), *available at* http://lethalinjectioninfo.org/wp-content/uploads/2018/06/State-by-State-Risk-Index.pdf.

drugs may be subject to civil or criminal penalties.[55]

In a number of states, the "prescription, preparation, compounding, dispensing, and administration of a lethal injection" is defined as no longer being within the practice of medicine, nursing, or pharmacy, and those who engage in those acts are explicitly exempted from regulation by the state boards of pharmacy and medicine.[56]

In Missouri, for example, the "execution team" includes "individuals who prescribe, compound, prepare or otherwise supply the chemicals for use in the lethal injection procedure," all of whom are shielded from public or regulatory scrutiny.[57] In addition, if a member of the execution team is licensed by a board or department, the licensing authority is prohibited from taking disciplinary action against the licensee for actions related to the execution drug.[58] Further, one who discloses the identity or a record which identifies a person as

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[55] DEATH PENALTY INFO. CTR., *supra* note 4.

[56] *See e.g.*, Ala. Code § 15-18-82.1(f); Fla. Stat. § 922.105(6); Ga. Code Ann. § 17-10-38(c); Ind. Code § 35-38-6-1(1)(e); Idaho Code § 19-2716A; Neb. Rev. Stat. § 83-966(2); N.H. Rev. Stat. Ann. § 630:5(XVI); N.C. Gen. Stat. § 90-1.1; Or. Rev. Stat. Ann. § 137.473(2); Va. Code Ann. § 53.1-234; Wyo. Stat. Ann. § 7-13-904(a).

[57] DEATH PENALTY INFO. CTR., *supra* note 4 (internal quotation marks omitted).

[58] *See id.*

being a current or former member of an execution team is liable for actual and punitive damages.[59]

Without the Missouri secrecy law, the thousands of regulatory violations by the Apothecary Shoppe, which supplied lethal injection drugs to the Missouri Department of Corrections, likely would have been uncovered years earlier.

In Oklahoma, officials acknowledged the damaging role that secrecy played in their state when announcing their decision to change execution methods from lethal injection to nitrogen hypoxia:

> One of the things that jumped out at me at the Grand Jury report * * *, was the lack of total transparency. * * * For the better part of two years and about 45 days, my discussions with individuals, seedy individuals who had access to drugs, even other states that have access to drugs, has all proven for naught. What came out of that conversation for me * * * was *there was no way to assure chain of custody, which leads to a lot of problems.*[60]

When a state department of corrections promotes opacity in the supply chain, these actions create future risks and undermine drug safety.[61]

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[59] *See id.*

[60] Joe Allbaugh, Dir., Oklahoma Dep't of Corr., Press Conference Regarding Oklahoma's Abandonment of Lethal Injection at 0:30/2:30 (Mar. 15, 2018), *available at* http://lethalinjectioninfo.org/oklahoma-abandons-lethal-injection/ (emphasis added).

[61] Yadav et al., *supra* note 18.

An erroneous reading of *Glossip* that would have lethal injection as the only method of execution available to states encourages state officials to seek drugs through means that create dangers to patients and the public.

E. States Are Expanding The List Of Drug Products Used In Lethal Injections, Creating Increased Risks.

As drugs used in the traditional three-drug execution protocol have become unavailable, States have added new drugs to their execution protocols. Twenty-one different drugs have now been used or proposed for use in lethal injections.[62] These include highly potent or addictive drugs of abuse, such as: Fentanyl, Hydromorphone, Pentobarbital, Amobarbital, Secobarbital, and Diazepam.

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[62] *See, e.g.*, Press Release, Nevada Dep't of Corr. (Aug. 17, 2017), http://doc.nv.gov/uploadedFiles/docnvgov/content/About/Press_Release/press%20release%20exec%20drugs.pdf (Nevada Department of Corrections proposed using diazepam, fentanyl, and cisatracurium besylate in a three-drug protocol); *Current State-By-State Execution Protocols*, Lethal Injection Info. Ctr., *supra* note 39 (Louisiana authorizes the use of Midazolam and Hydromorphone in a two-drug protocol; Texas authorizes the use of pentobarbital in a one-drug protocol); Monte Morin, *Proposed Lethal Injection Drugs Once Hailed as 'Sleep Cures'*, L.A. Times (Nov. 7, 2015, 10:10 AM), http://www.latimes.com/science/sciencenow/la-sci-sn-lethal-injection-20151106-story.html (California Department of Corrections and Rehabilitation proposed the use of amobarbital and secobarbital for use in executions).

Fentanyl and Hydromorphone have been at the center of the opioid crisis,[63] and many of the other drugs listed in state execution protocols are Schedule II Controlled Substances, meaning that they have a "high potential for abuse."[64]

Because of their abuse potential, all of these products are subject to strict distribution controls to prevent diversion and misuse. And because the manufacturers have contractually prohibited these products' use in executions, adding these drugs to lethal injection protocols leads to procurement outside of legitimate supply channels and the protections imposed by the CSA. Creating an alternative supply stream for these dangerous drugs of abuse—essentially a state-sponsored black market—increases the already overwhelming public health risk.[65]

In addition, many of the drugs that are used or have been proposed for use in executions are considered to be essential medicines for patient care. These include Fentanyl, Propofol, Midazolam, Phenobarbital, Diazepam, Potassium Chloride, Vecuronium Bromide, and Hydromorphone.[66] As a num-

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[63] *See* Opioid Overdose Crisis, Nat'l Inst. on Drug Abuse, Nat'l Insts. of Health, https://www.drugabuse.gov/drugs-abuse/opioids/opioid-overdose-crisis (last updated Mar. 2018).

[64] Drug Enforcement Admin., U.S. Dep't of Justice, Drugs of Abuse 9 (2017 ed.), https://www.dea.gov/pr/multimedia-library/publications/drug_of_abuse.pdf.

[65] Yadav et al., *supra* note 18.

[66] *See* World Health Org., *supra* note 5; World Health Org., WHO Model List of Essential Medicines (20th ed. amended Aug. 2017), http://www.who.int/medicines/publications/essential

ber of companies have warned, including these drugs in execution protocols could lead to shortages of the drugs for legitimate medical use.[67]

III. WHEN STATES CIRCUMVENT THE DRUG SAFETY REGIME, THEY CREATE SERIOUS RISKS.

The FDCA and CSA form the basis for an extensive and integrated system of drug regulation—including a closed drug distribution system—that protects the public health. Within that system, pharmaceutical manufacturers have understandably and legally

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medicines/20th_EML2017_FINAL_amendedAug2017.pdf?ua=1. The World Health Organization (WHO) updates and publishes a Model List of Essential Medicines every two years to reflect the global standard for medicines that are necessary to meet the priority health care needs of a population. In a functioning health system, essential medicines of an assured quality should be available at all times in an adequate amount. *See Essential Medicines & Health Products*, World Health Org., http://www.who.int/medicines/services/essmedicines_def/en/ (last visited July 23, 2018).

[67] Amicus Brief of Fresenius Kabi USA, LLC & West-Ward Pharms. Corp., *supra* note 20, at 4-5. A number of the drugs used in executions are already officially in short supply. *See FDA Drug Shortages: Current & Resolved Drug Shortages & Discontinuations Reported to FDA*, FDA https://www.accessdata.fda.gov/scripts/drugshortages/ (last visited July 23, 2018). In addition, a recent investigation overseen at Emory University hospital found that four states have been stockpiling drugs in short supply for use in executions, in quantities that would be sufficient to treat 11,257 patients in life-saving surgeries. *See* Ed Pilkington, *States are Stockpiling Lethal Injection Drugs That Could Be Used to Save Lives*, The Guardian (Apr. 20, 2017, 11:23 AM), https://www.theguardian.com/world/2017/apr/20/states-stockpiling-lethal-injection-drugs-arkansas-execution.

taken steps to prevent the use of their drugs for lethal injection.

As discussed above, this in turn has led states to operate outside of the federal drug regulatory system to obtain drugs for use in prisoner executions. These increasingly desperate moves have led to a spiraling of risks to patients receiving products that may be contaminated, counterfeit, adulterated, sub- or super-potent, or perhaps not even what their labelling says they are.

Illicit supply channels create an undeniable risk that is broader than lethal injection. State secrecy laws take a daunting task—ensuring the safety of the nation's drug supply—and make it ever more difficult for federal and state regulators to meet their responsibilities.[68] Secrecy laws exacerbate the risks, preventing the FDA and DEA from conducting effective investigations into illegal activity that would enable steps to be taken to mitigate the risk of substandard drugs being used on patients or drugs of abuse reaching the general public.

States are increasingly turning to pharmacy compounded drugs, where the risks are particularly acute, and are exacerbated by an absence of scrutiny, due to execution secrecy laws. The FDA has recognized the importance of strong state oversight of compounding in preventing another tragedy like the

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[68] *See* Yadav et al., *supra* note 18, at 2, 4; *see also* INST. OF MED. OF NAT'L ACADEMIES, COUNTERING THE PROBLEM OF FALSIFIED & SUBSTANDARD DRUGS (Gillian J. Buckley & Lawrence O. Gostin eds., 2013).

NECC fungal meningitis outbreak.[69] State secrecy laws make it increasingly likely that such oversight will not occur. The growing interest in drugs with a high risk of abuse for lethal injections also presents an enhanced cause for concern. There is no purpose that justifies the creation of a state-sponsored black market for such products.

The paths states have created for obtaining drugs for lethal injection increase the likelihood of patients being harmed by illegal, substandard drugs or the unavailability of legitimate drugs, and the public facing yet another source of drugs of abuse. They also undermine pharmaceutical manufacturers' ability to appropriately protect their businesses by restricting the purposes for which their drugs are distributed.

None of these consequences, let alone the accumulation of them, is justified by States' desires to carry out prisoner executions by lethal injection. The Court should make clear that any actions to carry out execution by lethal injection is subject to, and must be consistent with, the extensive federal regulatory scheme that protects the integrity of the nation's drug supply, the safety and effectiveness of drug products, and the public health.

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[69] *Compounding & the FDA: Questions & Answers*, FDA, *supra* note 32.

CONCLUSION

For the reasons stated above, *amici curiae* respectfully urge the Court to hold that the pursuit of execution by lethal injection does not permit a state to violate federal laws and regulations that protect the public health.

Respectfully submitted,

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No. 17-8151

IN THE

In the Supreme Court of the United States

RUSSELL BUCKLEW,

Petitioner,

v.

ANNE. L. PRECYTHE, DIRECTOR, DEPARTMENT OF CORRECTIONS,

Respondent.

On Writ of Certiorari to the United States Court of Appeals for the Eighth Circuit

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INTEREST OF *AMICUS CURIAE*[1]

Amicus Curiae[2] is comprised of legal scholars and academics ("*Amicus*") who have spent their careers studying and teaching United States constitutional law, including the death penalty and methods of execution, and many have written scholarly articles on these topics. The below listed members of *Amicus* respectfully submit this brief urging reversal of the decisions below.

The below listed members of *Amicus* are concerned and seek to apprise the Court of information regarding the "availability" of alternative methods of execution to be considered in clarifying the applicable Eighth Amendment standard for method-of-execution challenges.

- William W. Berry III, Associate Professor of Law, Frank Montague, Jr. Professor of Legal Studies and Professionalism, University of Mississippi School of Law, Robert C. Khayat Law Center;

- Dr. Christopher L. Blakesley, Professor Emeritus, UNLV & Louisiana State

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[1] Pursuant to Supreme Court Rule 37.6, *Amicus Curiae* states that no counsel for a party authored this brief in whole or in part and no person other than *Amicus Curiae*, its members, or their counsel made a monetary contribution intended to fund the preparation or submission of this brief. Letters of consent to this filing have been filed with the Clerk of the Court.

[2] The views expressed by the members of *Amicus Curiae* are their own and not those of the institutions where they teach. The list of institutions to which members of *Amicus Curiae* belong is provided merely for identification purposes.

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SUMMARY OF ARGUMENT

One issue presented by this case is what this Court means in requiring that a capital prisoner challenging a method of execution propose a "feasible, readily implemented" alternative procedure. The courts below here and other lower courts have interpreted *Glossip* in an unduly restrictive reading of this requirement. This interpretation has led to the summary rejection of petitioners' proposed alternative methods of execution, either because the method is not deemed immediately available to the state performing the execution, or because the method has not been explicitly authorized by state law. Indeed, since *Glossip*, few lower courts have found that a capital prisoner has met the pleading requirement, and in a majority, if not all, of those cases, the finding was overturned on appeal. Yet the availability requirement cannot be limited to those methods that

a state has already authorized by statute or that are immediately available at the time of the analysis, as this interpretation would lead, and has led, to a variety of inconsistent rulings on the availability of alternatives and therefore on the remedies available under the Eighth Amendment.

Amicus, as academic experts, has accumulated broad knowledge of the manner in which capital punishment is carried out throughout the world. In their experience, the implementation of the death penalty in countries throughout the world illustrates that lethal injection is a method that is not widely employed and is viewed as fraught with the substantial risk of pain and suffering, along with related practical difficulties. Accordingly, various other methods of execution are employed globally. Similarly, in the United States, the practice of the various death penalty jurisdictions demonstrates that there is a broad range of "available" methods.[3] As such, the limitations imposed by the lower courts interpreting *Glossip* are unduly restrictive.

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[3] *Amicus* discusses alternative methods of execution because that is what *Glossip* identifies as the framework for analyzing a method-of-execution challenge. By discussing these alternatives, *Amicus* does not specifically endorse any of them as a method of execution.

ARGUMENT

I. STATES CANNOT TRUNCATE THE RIGHTS SECURED BY THE EIGHTH AMENDMENT BECAUSE OF LIMITS IMPOSED BY STATE LAW OR RESOURCES.

The Eighth Amendment prohibits the infliction of "cruel and unusual punishments."

While this Court has not endeavored "to define with exactness the extent of the constitutional provisions which provides that cruel and unusual punishments shall not be inflicted," it has stated that it is "safe to affirm" that "punishments of torture . . . , and all others in the same line of unnecessary cruelty are forbidden." *Wilkerson v. Utah*, 99 U.S. 130, 135-36 (1878).

There is an *objective* categorical prohibition on cruel punishment; it is not conditional. The Eighth Amendment prohibits inherently barbaric punishments no matter the circumstance.

Where a state has sanctioned the use of a punishment that is cruel and unusual, state agents cannot erode this Constitutional prohibition due to limits imposed by state law or resources.

A. THERE HAS BEEN A TROUBLING HISTORY OF CRUEL AND UNUSUAL LETHAL INJECTIONS.

Lethal injection has produced the highest proportion of botched executions of all the methods of execution used in the United States since 1900.[4]

The high number of botched executions associated with lethal injection is the result of a number of factors, including individual prisoners' reactions to certain drugs, which can cause them to choke, convulse, and splutter in apparent pain, as well as the difficulties faced by prison staff when attempting to locate the veins of inmates who may be significantly overweight, have certain illnesses, or a history of drug abuse.[5]

The former was the case during the 1989 execution of Stephen McCoy. He reacted so violently to the drugs – gasping, choking, with his back

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[4] AUSTIN SARAT, GRUESOME SPECTACLES: BOTCHED EXECUTIONS AND AMERICA'S DEATH PENALTY, p. 117, 122 (Stanford University Press, 2014). "Botched executions occur when there is a breakdown in, or departure from, the 'protocol' for a particular method of execution. The protocol can be established by the norms, expectations, and advertised virtues of each method or by the government's officially adopted execution guidelines. Botched executions are those involving unanticipated problems or delays that caused, or at least arguably, unnecessary agony for the prisoner or that reflect gross incompetence of the execution." *Id.* at 5 (internal citations and quotations omitted).

[5] *Id.* at 22; *see also Death Penalty Information Center*, Examples of Post-*Furman* Botched Executions, *https://deathpenaltyinfo.org/some-examples-post-furman-botched-executions*.

arching off the gurney – that one witness even fainted. Afterward, the Texas Attorney General reported that McCoy "seemed to have had a somewhat stronger reaction," and that, "the drugs might have been administered in a heavier dose or more rapidly."[6]

The latter was the case during the 1992 execution of Ricky Ray Rector, who spent nearly an hour waiting for staff to locate his vein in Arkansas's execution chamber, during which time witnesses heard him crying out. Eventually, staff employed the "cut down" method, using a scalpel to cut Rector's arm and locate a vein. He died 19 minutes after the flow of lethal drugs began.[7]

More recently, on September 15, 2009, Ohio death row inmate Romell Broom endured repeated attempts to find a vein in his arms and legs before the state gave up and returned him to his prison cell.[8]

Additionally, when intravenous lines are not properly inserted, drugs can leak into the inmates' soft tissue, rather than reaching the blood stream. This was the case during the 2006 execution of Angel Diaz in Florida, during which the execution team misplaced the catheter. Official witnesses reported that Diaz continued to move for twenty-five minutes after the drugs were injected, grimacing, blinking,

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[6] *Death Penalty Information Center*, Examples of Post-*Furman* Botched Executions, *supra* note 5.

[7] SARAT, *supra* note 4, at 130.

[8] *Death Penalty Information Center*, Examples of Post-*Furman* Botched Executions, *supra* note 5.

and attempting to mouth words. He eventually died thirty-four minutes after the execution began, following a second injection of drugs.[9]

During the infamous botched execution of Clayton Lockett on April 29, 2014, the execution team similarly failed to properly insert the intravenous line and the lethal injection cocktail was pumped into Lockett's soft tissue instead of his vein. According to witnesses, Lockett groaned, writhed, lifted his head and shoulders off the gurney and continued to say words during the 43 minute period that it took him to die.[10]

Another recent factor contributing to the high number of botched lethal injections is the use of experimental drug protocols that have been employed only out of expediency due to restrictions on and difficulty in obtaining the three-drug cocktail approved in *Baze*, which restrictions have resulted in effectively rendering the "three-drug protocol at issue in *Baze*... no longer viable."[11] During the January 2014 execution of Dennis McGuire in Ohio, McGuire

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[9] SARAT, *supra* note 4, at 173.

[10] Jeffrey E. Stern, *The Cruel and Unusual Execution of Clayton Lockett*, THE ATLANTIC, Jun. 2015, https://www.theatlantic.com/magazine/archive/2015/06/execution-clayton-lockett/392069/; Katie Fretland, *Scene at botched Oklahoma execution of Clayton Lockett was 'a bloody mess,'* THE GUARDIAN, Dec. 13, 2014, https://www.theguardian.com/world/2014/dec/13/botched-oklahoma-execution-clayton-lockett-bloody-mess.

[11] Deborah W. Denno, *The Firing Squad as "a Known and Available Alternative Method of Execution" Post-Glossip*, UNIVERSITY OF MICHIGAN JOURNAL OF LAW REFORM, Aug. 9, 2016, at 751.

gasped for air, snorted, heaved, and clenched his fists for the approximately twenty-five minutes it took for the hydromorphone and midazolam to take effect. Similarly, during the July 2014 execution of Joseph R. Wood in Arizona, after the chemicals midazolam and hydromorphone were injected, Wood gasped repeatedly for nearly two hours before he was pronounced dead.[12]

In addition to the risks inherent to lethal injection, some death row inmates – such as the Petitioner – have distinctive anatomy or medical conditions that create additional risks that the execution will go awry. Alabama death row inmate Doyle Lee Hamm currently suffers from terminal cancer and enlarged lymph nodes, which have rendered his veins inaccessible. During his scheduled execution on February 22, 2018, Mr. Hamm endured repeated attempts to find a vein in his ankles, lower legs, and groin over a two hour period before the state gave up and returned him to his prison cell.[13]

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[12] *Death Penalty Information Center*, Examples of Post-*Furman* Botched Executions, *supra* note 5.

[13] Tom Batchelor, *Doyle Lee Hamm execution: Repeated jabbing of death row inmate in attempted lethal injection amounts to torture, says lawyer*, THE INDEPENDENT, Feb. 26, 2018, https://www.independent.co.uk/news/world/americas/doyle-lee-hamm-execution-alabama-death-row-lethal-injection-torture-lawyer-latest-a8229241.html.

B. IF STATES CAN PRE-DEFINE WHAT METHODS OF EXECUTION ARE "AVAILABLE," THEN ANY CRUELTY IS INSULATED FROM REVIEW.

To challenge a "cruel and unusual" method of execution, a capital prisoner must demonstrate that the state's proposed method of execution presents both a "substantial risk of serious harm" and an "objectively intolerable risk of harm." *Farmer v. Brennan*, 511 U.S. 825, 842, 846 (1994).

In *Baze v. Rees*, 553 U.S. 35 (2008), this Court held that in order to succeed on an Eighth Amendment challenge against a method of execution, a petitioner must establish that the method of execution proposed by the state is "sure or very likely to cause serious illness and needless suffering," gives rise to "sufficiently imminent dangers" (quoting *Helling v. McKinney*, 509 U.S. 25, 33, 34-35 (1993)), and that such risk of severe pain "is substantial when compared to the known and available alternatives." *Id.* at 50, 61. A petitioner must also identify an alternative that is "feasible, readily implemented, and in fact significantly reduce[s] a substantial risk of severe pain." *Id.* at 51.

Expanding on *Baze*, this Court in *Glossip v. Gross*, 135 S.Ct. 2726 (2015) laid out a two-prong test. According to *Glossip*, to succeed on an Eighth Amendment method-of-execution claim, a petitioner must plead and prove (1) a risk of severe pain and (2) the availability of a "feasible, readily implemented" alternative that "significantly reduce[s] a substantial risk of severe pain." *Id.* at 2737 (quoting *Baze*, 553

U.S. at 51–52). To satisfy the first prong, the petitioner must demonstrate that:

> the method presents a risk that is "*sure or very likely* to cause serious illness and needless suffering," and give rise to "sufficiently *imminent* dangers .... [T]here must be a substantial risk of serious harm, an objectively intolerable risk of harm that prevents prison officials from pleading that they were subjectively blameless for purposes of the Eighth Amendment."

Id. (quoting *Baze*, 553 U.S. at 50, in turn citing *Helling v. McKinney*, 509 U.S. at 33–35; *Farmer v. Brennan*, 511 U.S. at 846, n.9) (emphasis added). In order to satisfy the second prong, a petitioner must plead and prove that there is a "known and available" alternative method of execution that is "feasible, readily implemented" and that "significantly reduce[s] a substantial risk of severe pain." *Id.* at 2737-38.

Unfortunately, *Glossip* "provided little guidance as to when an alternative method of execution is 'available.'" *McGehee v. Hutchinson*, 854 F.3d 488, 500 (8th Cir. 2017) (Kelly, J., dissenting). As a result, lower courts addressing the "known and available" requirement since *Glossip* have inconsistently – and incorrectly – interpreted *Glossip*'s holding.

For instance, the Eighth Circuit has taken the position that while an alternative method need not "be authorized by statute or ready to use

immediately," "the State must have access to the alternative and be able to carry out the alternative method relatively easily and reasonably quickly." *McGehee*, 854 F.3d at 493, *cert. denied*, 137 S. Ct. 1275 (2017). Under this standard, it has rejected known methods of execution based on their lack of an extensive history of use, as well as the State's failure to obtain the proposed drugs years prior, deeming them unlikely to emerge as more than a "slightly or marginally safer alternative" as a result. *See id.* at 493. At the same time, the Eighth Circuit also rejected the firing squad—one of the nation's oldest and easily performed forms of execution—as an alternative, determining it to not be "readily implemented." *Id.* at 494.

Similarly, in *Johnson v. Lombardi*, 2015 WL 6501083 (W.D. Mo. Oct. 27, 2015), *cert. denied*, 136 S.Ct. 601 (2015), the District Court for the Western District of Missouri rejected execution by lethal gas as an alternative method. It held that although legal gas was provided for under state statute, the petitioner "never explain[ed] how execution by lethal gas is feasible or could be readily implemented" because he did not assert that the "State has a working gas chamber or all the supplies necessary to operate such a chamber." *Id.* at *3 (citing Mo. Rev. Stat. § 546.720.1). According to the Western District of Missouri, "feasibility asks whether the alternative method is 'capable of being done, executed, or effected'" and "readiness of implementation asks whether the alternative method of execution can be used promptly, efficiently, or without delay." *Id.* The court held, in concluding that the petitioner was unable to prevail on the merits, that "simply because Missouri law *authorizes* the use of lethal gas does not

mean the state is anywhere near prepared to actually *use* lethal gas for executions." *Id.* (emphasis in original).

Various alternative means of execution have likewise been proposed by petitioners and rejected by other courts that have concluded that those methods could not be obtained or implemented by the state in a sufficiently prompt manner. The dilemma posed in these cases is that there are alternative methods of execution "known and available" but perhaps not in the possession or control of the particular state at the immediate time and location of the challenge. *See, e.g., Kelley v. Johnson*, 2016 Ark. 268 (2016) (denying proposed alternative drugs because the inmate's contention that they were "generally available on the market" failed to address whether the state was able to obtain them; further rejecting the firing squad as an alternative on the basis that "reciting bare allegations" that the state possessed "firearms, bullets, and personnel at its disposal to carry out an execution" was insufficient to show that a firing squad was readily available); *Arthur v. Dunn*, 2016 WL 1551475 (M.D. Ala. April 15, 2016) (finding that compounded pentobarbital was not readily available and stating that "[p]roof that another state procured it, that with effort it can be compounded . . ., and indications on the internet that a supplier offers to sell the active ingredients, do not prove a feasible and readily available product. At best, it proves a 'maybe.'"); *Brooks v. Warden*, 810 F.3d 812 (11th Cir. 2016) (rejecting three proposed alternative methods of execution, including midazolam alone, on the basis that although it was "undisputed" that midazolam was available to Alabama, the protocol had never been used

previously, there was still uncertainty regarding the "ceiling effect" of the drug, and thus it could not be readily implemented).

In considering alternatives to lethal injection by a particular combination of drugs, some courts have relied on the potential difficulty of obtaining proposed alternative drugs, despite properly recognizing that it "need not have the drugs on hand." *In re Ohio Execution Protocol*, 860 F.3d 881 (6th Cir. 2017) (overturning the district court's finding that inmates had met the "available" and "readily implemented" requirement, stating the district court was "seriously mistaken as to what 'available' and 'readily implemented' mean"; finding the proposed alternative method unavailable because Ohio was required to receive an import license from the Drug Enforcement Administration and Ohio could not be certain whether the license would be approved or when they would receive a decision, and that "for the standard to have practical meaning, the state should be able to obtain the drugs with ordinary transactional effort"); *see also*, *Grayson v. Dunn*, 156 F. Supp. 3d 1340 (M.D. Ala. 2015) (denying the proposed alternative, in part, because the capital inmate had only plead that the proposed single-drug protocol alternatives may be available to other states, which did not indicate that they were available to Alabama); *Jones v. Kelley*, 854 F.3d 1009 (8th Cir. 2017) (holding that the possibility that Arkansas could acquire pentobarbital was too speculative since the state had made at least three unsuccessful attempts to do so two years earlier).

The same conclusion has been reached even where a state had taken key steps in acquiring the

drug and the state's own expert testified that "he believed [the alternative drug] could be obtained." *In re Ohio Execution Protocol*, 860 F.3d at 899 (Moore, J., dissenting).

Additionally, numerous federal courts have held that if the method of execution is not already statutorily authorized, it is not "available." *See Kelley v. Johnson*, 2016 Ark. 268 (because "[e]xecution by firing squad [was] not identified in the statute as an approved means of carrying out a sentence of death," the court concluded that "it cannot be said that the use of a firing squad is a readily implemented and available option to the present method of execution.") (citing Ark. Code. Ann. § 5–4–617); *Arthur v. Dunn*, 2016 WL 3912038, at *2 n.5 (M.D. Ala. July 19, 2016) ("A firing squad is not a legal method of execution in Alabama."); *Boyd v. Myers*, 2015 WL 5852948, at *4 (M.D. Ala. Oct. 7, 2015) (holding that Boyd failed to meet his burden of pleading a feasible and readily available alternative because he "identifie[d] a firing squad and hanging as two feasible and readily available alternatives . . . [b]ut those two methods are not permitted by statute in Alabama," and as such implement the proposed alternative without lethal injection and electrocution first being declared unconstitutional would require a statutory amendment; further finding that the fact that other states provide for those two methods "does not make them feasible or readily available for use by Alabama."); *Bible v. Davis*, 2018 WL 3068804, at *9 (S.D. Tex. June 21, 2018), *aff'd*, 2018 WL 3156840 (5th Cir. June 26, 2018) (holding that Bible failed to prove that either firing squad or nitrogen hypoxia were feasible or readily implemented because "Texas law and protocol allow for the State to use only one

method of execution: lethal injection" and "switching to either of Bible's proposed alternatives would require new statutory law and the formulation of new protocol."). This gives rise to the anomalous result that hanging, for example, is not "known and available" in Arkansas, Alabama, and Maryland, but is specifically authorized by statute in Mississippi, Oklahoma, and Utah and used around the world by more countries than any other method of execution.[14]

By allowing a potentially cruel and unusual punishment to only be successfully challenged if that state statutorily provides an alternative and/or has kept its equipment in good operational order, states effectively have veto power over capital inmates' Eighth Amendment rights. This simply cannot be the law.

Indeed, allowing each state to determine the available methods of execution in this way would balkanize Eighth Amendment jurisprudence, leading to arbitrary results. One state might authorize a method of execution that was gratuitously cruel, yet it would be insulated from any review. Such a decision might be improvised by the warden of a prison[15] or the

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[14] Ironically, in some circumstances courts have shown a willingness to depart from statutorily authorized methods when the state proposes the alternative method, yet rarely when the prisoner proposes it. *See, e.g., Jordan v. Fisher*, 823 F.3d 805 (5th Cir. 2016) (holding that Mississippi's deviation from its statutory method of execution did not violate prisoners' due process rights because it would not "'impose atypical and significant hardship' on the prisoners beyond the ordinary for those facing execution" or "shock the conscience" in a manner that would to entitle them to substantive enforcement of the statute).

[15] *See* South Dakota (SDCL 23A-27A-32) and Georgia (OCGA § 50-13-4).

director of the department of corrections,[16] without more. Another state might list any number of different methods,[17] or allow the use of a certain method only in the limited circumstance that the first method was found to be unconstitutional[18] – which would be logically impossible if the primary method was deemed under state law to be the only possible method. Hence, in medical circumstances such as those confronting the Petitioner here, a method of execution "known" and recognized globally could be denied to the prisoner simply because it was not listed on the state statute, and even those available by state statute could be denied simply because that method has fallen into disuse, even if it would alleviate unconstitutional suffering.

Such an interpretation is not only illogical, but it runs counter to the holdings in *Glossip* and *Baze*, neither of which foreclosed alternative methods of execution beyond state statute or immediate availability. The majority in *Glossip* indicated that despite the fact that at the time Oklahoma's death penalty law only permitted the use of "drug or drugs," Petitioners could have (but had failed to) plead alternative methods of execution. There, this Court held that Petitioners "had not identified any available drug or drugs that could be used in place of those that Oklahoma is now unable to obtain[, n]or have they

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[16] *See e.g.*, South Carolina.

[17] *See* Tennessee, where the electric chair may be used if the drugs for lethal injection are not available.

[18] *See* Oklahoma, Sta. Ann. 22, § 1014, authorizing lethal injection, or as alternatives nitrogen hypoxia, electrocution, or the firing squad respectively, depending on whether the preceding method is found unconstitutional.

shown a risk of pain so great that *other acceptable, available methods must be used.*" 135 S. Ct. at 2738 (emphasis added). Similarly, the plurality in *Baze* held that "[i]f a State refuses to adopt [a proposed] alternative in the face of . . . documented advantages, without a legitimate penological justification for adhering to its current method of execution, then a State's refusal to change its method can be viewed as 'cruel and unusual' under the Eighth Amendment." 553 U.S. at 52. This Court clearly did not intend to limit prisoners' ability to propose alternative methods of execution to those provided by a respective state's statute or available on-hand.

Indeed, if a state statute could impose such limitations on the available methods of execution, "even if a prisoner can prove that the State plans to kill him in an intolerably cruel manner, and even if he can prove that there is a feasible alternative, all a State has to do to execute him through an unconstitutional method is to pass a statute declining to authorize any alternative method." *Arthur v. Dunn*, 137 S. Ct. 725, 729 *reh'g denied*, 137 S. Ct. 1838 (2017) (SOTOMAYOR, dissenting from denial of certiorari). That is certainly not what the Eighth Amendment, the Constitution of the United States, or this Court's precedent provides. Without question, "state laws respecting crimes, punishments, and criminal procedure are . . . subject to the overriding provisions of the United States Constitution." *Payne v. Tennessee*, 501 U.S. 808, 824 (1991)).

Moreover, such interpretations run counter to the principle of uniformity in constitutional interpretation required throughout the country. *See Martin v. Hunter's Lessee*, 14 U.S. 304, 347–348

(1816) (emphasizing the "'necessity of uniformity' in constitutional interpretation 'throughout the whole United States, upon all subjects within the purview of the constitution.'" (emphasis deleted)).

Glossip's threshold requirement of identifying a known and readily implemented method is being applied in a constricted manner to limit those alternatives to those already prescribed in a state statute (and sometimes not even those) or to those execution methods for which the necessary elements are in that states' "medicine cabinet" at the time. That is not what this Court's precedent requires, nor is such restrictive reading permitted by the Constitution.

II. THE EXPERIENCE OF COUNTRIES AROUND THE WORLD HELPS TO INFORM WHAT METHODS OF EXECUTION ARE "AVAILABLE" AND ILLUSTRATES HOW LETHAL INJECTION IS AN OUTLIER IN WORLD PRACTICE.

Although *Amicus* does not endorse any method of execution, *Amicus* has developed an academic expertise in the manner in which the death penalty is carried out around the world, and this helps inform what is a "feasible, readily implemented alternative procedure."

A survey of execution methods across the world suggests that lethal injection is an anomaly, rather than the norm. Of the ninety-three countries that have laws authorizing the death penalty, the overwhelming majority – 93.5% – have decided to use

execution methods other than lethal injection.[19] Just the United States and five other countries (6.5%) provide for lethal injection as a method of execution, either in law or practice.[20] Only five countries have used this method in the past seven years, and one, Taiwan, has now abandoned this method in favor of the firing squad.[21] Several other countries that implement the death penalty have actively rejected lethal injection, opting instead for alternative methods of execution, like hanging.[22]

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[19] *Cornell Law School, Cornell Center on the Death Penalty Worldwide*, Death Penalty Database, http://www.deathpenaltyworldwide.org/search.cfm.

[20] China, Guatemala, Taiwan, Thailand, and Vietnam.

[21] *Amnesty International*, Death Sentences and Executions, 2012, 2013, 2014, 2015, 2016; Harriet Agerholm, *Thailand Uses Lethal Injection to Execute First Prisoner in Nearly a Decade*, THE INDEPENDENT, Jun. 19, 2018, https://www.independent.co.uk/news/world/asia/thailand-execution-death-penalty-lethal-injection-amnesty-international-a8405711.html.

[22] For example, India, the Maldives, and Papua New Guinea have specifically opted to not use lethal injection as a method of execution. *See* Writ Petition (CRL.) (PIL) No. 145 of 2017, Counter Affidavit on Behalf of the Respondent, para. 14 (i) and (ii); *Maldives: Halt First Execution in More Than 60 Years*, AMNESTY INTERNATIONAL, Jul. 20, 2017, https://www.amnesty.org/en/latest/news/2017/07/maldives-halt-first-execution-in-more-than-60-years/; Mohamed Visham, *Maldives Amends Capital Punishment Law to Opt for Death by Hanging*, THE EDITION, Jun. 17, 2016, https://edition.mv/news/148; Maldives to Execute *Death Row Inmates by Hanging*, *MALDIVES INDEPENDENT*, Jun. 19, 2016, https://maldivesindependent.com/politics/maldives-to-execute-death-row-inmates-by-hanging-124872; *Papa New Guinea Rules Out Lethal Injection in Hunt for Execution Method*, DEATH PENALTY NEWS, Oct. 14, 2014, http://deathpenaltynews.blogspot.co.uk/2014/10/papua-new-guinea-rules-out-lethal.html.

Further evidence of the increasing disfavor of lethal injection may be gleaned from countries that have abolished the death penalty. For example, in the United Kingdom, the medical community resisted efforts to introduce lethal injection based on a "lack of 'reasonable certainty' that lethal injection executions could be carried out 'quickly, painlessly and decently.'"[23] Great Britain's Royal Commission on Capital Punishment ultimately rejected lethal injection, in part because it could not be used on individuals with certain "physical abnormalities."[24]

Given how few countries use lethal injection as a method of execution, it cannot be that lethal injection is the only "available" method of execution. Indeed, international practice reflects a number of readily available and regularly used methods of execution.

For example, some 62.36% of the countries around the world that implement the death penalty provide for hanging as a method of execution in their statutes. Of the thirty-two countries that actually carried out executions between 2013 and 2017, eighteen (56%) used hanging.[25]

The firing squad is the second most common method of execution internationally, and is provided

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[23] SARAT, *supra* note 4, at 177.

[24] See ROYAL COMMISSION ON CAPITAL PUNISHMENT 1949-53, REPORT 258–280.

[25] See *Cornell Law School, Cornell Center on the Death Penalty Worldwide*, Death Penalty Database, http://www.deathpenaltyworldwide.org/search.cfm; *Amnesty International*, Death Sentences and Executions, 2013, 2014, 2015, 2016, 2017.

for in law by 53.76% of countries whose laws provide for capital punishment. Of the thirty-two countries that carried out executions between 2013 and 2017, fourteen (44%) used the firing squad.[26] In addition to its widespread use, the firing squad – like hanging – is carried out using procedures that are relatively simple and consistent across jurisdictions, suggesting that it is a well-established method of execution worldwide.[27]

To be clear, *Amicus* does not claim that the United States is somehow bound to use other methods because international practice shows them to be more prevalent. Rather, *Amicus* simply suggests that the argument that such methods (hanging and the firing squad) are not "known and available" is implausible given how very well-known and readily available both methods are in international practice.

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[26] *Id.* To clarify the numbers, two international jurisdictions have used both lethal injection and the firing squad; two have used both hanging and the firing squad.

[27] Typically, prisoners are executed by a group of people, only some of whom have loaded rifles. *See* Kate Lamb, *Death Penalty in Indonesia: An Executioner's Story*, THE GUARDIAN, Mar. 5, 2015, https://www.theguardian.com/world/2015/mar/06/death-penalty-in-indonesia-an-executioners-story; *Cornell Center on the Death Penalty Worldwide, Cornell Law School*, Indonesia, http://www.deathpenaltyworldwide.org/country-search-post.cfm?keyword=shot+to+the+head (last visited Jul. 20, 2018); Salam Al Amir, *Moosa Killer Begged for Forgiveness at Execution*, THE NATIONAL, https://www.thenational.ae/uae/moosa-killer-begged-for-forgiveness-at-execution-1.377015.

III. THE METHODS OF EXECUTION USED IN THE UNITED STATES FURTHER INFORM WHAT METHODS ARE "AVAILABLE" AND ILLUSTRATE A BROAD RANGE OF ALTERNATIVES.

As suggested by the international experience, various alternatives to lethal injection are readily available in the United States.

Several states already recognize the issues with lethal injection that make it a global anomaly. For instance, earlier this year, Oklahoma opted to include nitrogen hypoxia as a potential method of execution. Additionally, Alabama now allows prisoners to affirmatively choose either nitrogen hypoxia or electrocution in place of lethal injection. At the very least, these recent developments demonstrate that there certainly are "known" and "available" alternatives for states to choose aside from lethal injection. An overview and the history of such methods known and available to the United States is examined below.

Firing Squad: The firing squad is one of the oldest known methods of execution in the United States[28] and has been used since before the country's founding, with the first documented firing squad execution taking place in Virginia in 1608, followed by 144 further executions since that date (thirty-four of which have taken place since 1900).[29] Utah ended the nine-year moratorium in capital punishment in

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[28] Denno, *supra* note 11, at 778.

[29] *Id.*

the United States in 1977 by executing inmate Gary Gilmore by firing squad.[30] The most recent firing squad execution to take place in the United States was carried out in Utah in 2010, in the same room used for lethal injection executions.[31]

Currently, Mississippi, Oklahoma, and Utah provide for execution by firing squad in their statutes,[32] and at least three of Utah's nine death row inmates are scheduled to die by the firing squad in coming years, having elected to do so under an earlier version of the Utah statute.[33] Thus, the firing squad is a readily available method of execution in the United States.[34]

Hanging: Hanging is one of the oldest known methods of execution in the United States.[35] By

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[30] *Id.* at 757.

[31] *Id.* at 782.

[32] Utah Code Ann. § 77-18-5.5; Oklahoma H.B. 1879 at § 1014 (D); Miss. Code Ann. § 99-19-51.

[33] Ben Winslow, *The Men on Utah's Death Row and How They Want to Die*, FOX 13 NOW, Feb. 12, 2016, http://fox13now.com/2016/02/12/the-men-on-utahs-death-row-and-how-they-want-to-die/.

[34] Additionally, in April 2015 South Carolina Rep. Joshua A. Putnam introduced a bill proposing that South Carolina to administer the death penalty by firing squad if lethal injection drugs are not available. In 2017, lawmakers in Alabama introduced legislation to bring back the firing squad. H. 4038, http://www.scstatehouse.gov/sess121_2015-2016/bills/4038.htm; WSFA, AL lawmaker wants to add firing squad to death row options, January 31, 2017, http://www.wsfa.com/story/34392999/al-lawmaker-wants-to-add-firing-squad-to-death-row-options.

[35] Denno, *supra* note 11, at 778.

1853, hanging had become "the nearly universal form of execution in the United States and 48 States once imposed death by this method." *Campbell v. Wood*, 511 U.S. 1119, 1119 (1994) (Blackmun, J., dissenting from denial of certiorari) (internal citation and quotation marks omitted). Until 1890, hanging was the primary means by which capital punishment was carried out.[36] Even after 1890, when hanging was overtaken by electrocution as the preferred method of execution, it remained the second most commonly used method of execution, such that 2,721 inmates were executed using this method between 1900 and the present day.[37]

Today, two states, New Hampshire and Washington, continue to provide for execution by hanging in their state statutes,[38] demonstrating that this remains an available method of execution in the United States.

Other Methods: There are other methods of execution that are available in the United States, even if they are not prevalent in other countries. For example, from 1900 through the present day, electrocution has been the most commonly used method of execution in the United States, with 4,376 executions.[39] Today, Alabama, Arkansas, Florida,

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[36] *A Glance at the 5 Execution Methods Allowed in the US Today and How They Work*, FOX NEWS, May 23, 2014, http://www.foxnews.com/us/2014/05/23/glance-at-5-execution-methods-allowed-in-us-today-and-how-work.html.

[37] SARAT, *supra* note 4, at 177.

[38] N.H. Rev. Stat. § 630:5; Revised Code of Washington, RCW 10.95.180.

[39] SARAT, *supra* note 4, at 177.

Kentucky, Mississippi, Oklahoma, South Carolina, Tennessee, and Virginia retain electrocution in their state statutes, demonstrating that this too remains a known and available method of execution in the United States.[40]

Additionally, lethal gas was first introduced as a method of execution in Nevada in March of 1921 and was first used in February of 1924.[41] At one point, eleven states had adopted lethal gas as a method of execution.[42] Currently, four states – Arizona, California, Missouri, and Wyoming – statutorily authorize the gas chamber as a method of execution. Three states – Alabama, Mississippi, and Oklahoma – authorize nitrogen hypoxia as a method of execution.[43]

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[40] *Death Penalty Information Center*, Methods of Execution, https://deathpenaltyinfo.org/methods-execution.

[41] SARAT, *supra* note 4, at 90, 94–95.

[42] Arizona, Colorado, North Carolina, Wyoming, California, Missouri, Oregon, Mississippi, Maryland and New Mexico. See *Id.* at 96.

[43] *Death Penalty Information Center*, Methods of Execution, https://deathpenaltyinfo.org/methods-execution?scid=8&did=245#al. In March of 2018, Oklahoma became the first state to make nitrogen gas available when lethal injection is not possible. State officials noted that in order to carry out lethal injection executions, they would have to obtain the drugs "illegally," and did not want to buy drugs from "seedy individuals" on "back streets" in order to continue to use it. They also referenced problems with lethal injections in other states, such as the Alabama case of Doyle Lee Hamm, who was "punctured eleven times" over the course of several hours in a prolonged execution that Oklahoma officials described as "inhumane".

Thus, there are various readily available methods of execution. Moreover, history demonstrates that it is not unduly burdensome for states to alter their authorized methods of execution. After all, it was not so long ago – 1977 – that Oklahoma became the first state to authorize lethal injection, and every state that adopted it subsequently merely changed its own rules.

CONCLUSION

For the reasons stated above, *Amicus Curiae* respectfully urges the Court to reverse the lower courts and clarify that the "known and available" requirement for pleading method-of-execution cases mandates neither that the proposed alternative be available on-hand, nor that it be prescribed by state statute.

Respectfully submitted,

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No. 17-8151

In the Supreme Court of the United States

RUSSELL BUCKLEW, PETITIONER

v.

ANNE PRECYTHE, DIRECTOR, MISSOURI DEPARTMENT OF CORRECTIONS, ET AL.

ON WRIT OF CERTIORARI
TO THE UNITED STATES COURT OF APPEALS
FOR THE EIGHTH CIRCUIT

BRIEF FOR THE STATES OF TEXAS, ALABAMA, ARIZONA, ARKANSAS, COLORADO, FLORIDA, GEORGIA, IDAHO, INDIANA, KANSAS, LOUISIANA, MISSISSIPPI, NEBRASKA, SOUTH CAROLINA, TENNESSEE, UTAH, AND WYOMING AS AMICUS CURIAE IN SUPPORT OF RESPONDENTS

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INTEREST OF AMICI CURIAE

Amici are the States of Texas, Alabama, Arizona, Arkansas, Colorado, Florida, Georgia, Idaho, Indiana, Kansas, Louisiana, Mississippi, Nebraska, South Carolina, Tennessee, Utah, and Wyoming.[1] Amici States have a direct interest in being able to carry out the solemn duty of enforcing the death penalty enacted by state legislatures. While States have "sought a more humane way to carry out death sentences" over the years, this Court has simultaneously recognized that "some risk of pain is inherent in any method of execution." *Glossip v. Gross*, 135 S. Ct. 2726, 2732, 2733 (2015). Amici States thus urge the Court to reiterate that the established *Glossip* standard applies to all Eighth Amendment challenges to methods of execution and "that the Constitution does not require the avoidance of all risk of pain." *Id.* at 2733.

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[1] Pursuant to Supreme Court Rule 37, amici state that no counsel for any party authored this brief, in whole or in part, and no person or entity other than amici contributed monetarily to its preparation or submission. The parties received timely notice of filing and consented to the filing of this brief.

SUMMARY OF ARGUMENT

The Court has established a two-pronged test for Eighth Amendment challenges to methods of execution. *See Glossip*, 135 S. Ct. at 2737; *Baze v. Rees*, 553 U.S. 35, 61 (2008) (plurality opinion). Petitioner seeks an exemption from this established test's second element (requiring the prisoner to establish a feasible, readily identifiable alternative method of execution that significantly reduces a substantial risk of severe pain). But *Glossip* already rejected exemptions from this second element. Petitioner therefore tries to distinguish *Glossip*—and *Baze*—as pertaining only to "facial" challenges, and asserts that a different Eighth Amendment test on the merits should apply to him because he is raising an "as-applied" challenge.

The Court should reject petitioner's request to modify its precedent and create a new exemption from the established Eighth Amendment test for method-of-execution claims. *Baze* itself was a challenge to how a State's execution protocol would be applied in practice, thus foreclosing petitioner's argument here. Regardless, neither *Glossip* nor *Baze* described the Eighth Amendment test as turning on whether a prisoner was raising a facial versus an as-applied challenge. And petitioner places undue emphasis on the difference between facial and as-applied challenges in the context of method-of-execution claims. The distinction between facial and as-applied challenges implicates the breadth of the remedy—not whether a constitutional violation has occurred in the first place. Plus, the distinction between facial and as-applied challenges is not particularly well defined, so creating the exception petitioner requests would lead to a flood of litigation from capital prisoners and swallow the rule already established in *Glossip* and *Baze*.

ARGUMENT

I. The Court has established a two-pronged test for Eighth Amendment challenges to methods of execution.

Glossip reconfirmed this Court's dual "requirements of an Eighth Amendment method-of-execution claim." 135 S. Ct. at 2737. To show such an Eighth Amendment violation, the prisoner must first "establish[] that the State's lethal injection protocol creates a demonstrated risk of severe pain," *id.* (quoting *Baze*, 553 U.S. at 61), and second, "[h]e must show that the risk is substantial when compared to the known and available alternatives," *id.* (quoting *Baze*, 553 U.S. at 61) (alteration in original).

Under the first element, the prisoner must "establish that the method presents a risk that is '"*sure or very likely* to cause serious illness and needless suffering,' and give rise to 'sufficiently *imminent* dangers.'" *Id.* (quoting *Baze*, 553 U.S. at 50 (quoting *Helling v. McKinney*, 509 U.S. 25, 33, 34-35 (1993))). And under the second element, "prisoners must identify an alternative that is 'feasible, readily implemented, and in fact significantly reduce[s] a substantial risk of severe pain." *Id.* (quoting *Baze*, 553 U.S. at 52). Petitioner acknowledges this test and its utility, but only in the context of what he classifies as facial challenges. Pet. Br. 37.

II. *Glossip* and *Baze* foreclose petitioner's argument that a different Eighth Amendment standard should apply to as-applied challenges.

A. Petitioner argues that he "should not bear the burden of identifying a known and available alternative"—that is, he should not have to satisfy the second element of the *Glossip/Baze* test. Pet. Br. 36. This is essentially the same argument *Glossip* rejected:

> Instead, [the prisoners] argue that they need not identify a known and available method of execution that presents less risk. But this argument is inconsistent with the controlling opinion in *Baze*, 553 U.S., at 61, 128 S.[ ]Ct. 1520, which imposed a requirement that the Court now follows.

Glossip, 135 S. Ct. at 2738 (footnote omitted).

Given that *Glossip* rejected such an exemption from the second element of the applicable test, petitioner now tries to distinguish *Glossip* and *Baze* as cases only pertaining to "facial challenges." Pet. Br. 38. And petitioner construes his argument as asking for an "as-applied" exemption from the second element. Pet. Br. 36.

But Petitioner places undue emphasis on the distinction between facial and as-applied challenges. "'[T]he distinction between facial and as-applied challenges is not so well defined.'" *Elgin v. Dep't of Treasury*, 567 U.S. 1, 15 (2012) (quoting *Citizens United v. FEC*, 558 U.S. 310, 331 (2010)). A substantive rule for determining whether the Constitution has been violated—like the Eighth Amendment standard for method-of-execution challenges—should "not involve such amorphous distinctions." *Id.*

In fact, *Baze* itself was a challenge to the *application* of a method-of-execution protocol. The challengers in

Baze "concede[d] that 'if performed properly,' an execution carried out under Kentucky's procedures would be 'humane and constitutional.'" 553 U.S. at 49. Stated differently, the *Baze* challengers were *not* contesting the validity of the Kentucky execution protocol as written *on its face*. Instead, they argued that—in application—"there is a significant risk that the procedures will *not* be properly followed." *Id.* The Court nevertheless required the plaintiffs bringing this as-applied challenge to establish the second element of identifying a "feasible, readily implemented" alternative execution method. *Id.* at 52. *Baze* therefore forecloses the as-applied exemption petitioner seeks here.

B. Even if *Baze* did not foreclose petitioner's arguments, petitioner fundamentally misunderstands this Court's doctrine regarding facial versus as-applied challenges.

Regardless of whether a claim is characterized as a facial or an as-applied challenge, courts first determine the predicate issue of whether a legal violation has occurred, and only after finding a substantive violation do courts turn to the separate issue of what remedy is proper to cure that violation. The facial versus as-applied distinction implicates the latter question: "[T]he distinction between facial and as-applied challenges . . . goes to the breadth of the remedy employed by the Court." *Citizens United*, 558 U.S. at 331; *see United States v. Salerno*, 481 U.S. 739, 745 (1987) ("A facial challenge . . . must establish that no set of circumstances exists under which the Act would be valid.").

But whether a claim is styled as a facial or as-applied challenge has no bearing on the substantive test on the merits for determining whether the Constitution is violated: "The substantive rule of law is the same for both

challenges." *Edwards v. Dist. of Columbia*, 755 F.3d 996, 1001 (D.C. Cir. 2014) (citing *Legal Aid Servs. of Or. v. Legal Servs. Corp.*, 608 F.3d 1084, 1096 (9th Cir. 2010)); *accord, e.g.*, *Doe v. City of Albuquerque*, 667 F.3d 1111, 1127 (10th Cir. 2012); *Smith v. City of Chicago*, 457 F.3d 643, 652 (7th Cir. 2006).

It therefore makes perfect sense that *Glossip* and *Baze* did not suggest that the established two-pronged Eighth Amendment test should only be used for facial—but not as-applied—challenges. *Glossip* and *Baze* were applying broadly established Eighth Amendment principles. *See Glossip*, 135 S. Ct. at 2737 (citing *Baze*, 553 U.S. at 50, 51, 52). And nothing in those doctrines suggests that these Eighth Amendment principles do not apply to this case. Petitioner suggests that the only animating principle in *Glossip* was the Court's recognition that its doctrine should not "creat[e] a new moratorium on capital punishment." Pet. Br. 38. That was certainly one factor in the Court's analysis in *Glossip*. *See* 135 S. Ct. at 2732-33. But it was hardly the only basis. *Glossip* separately reiterated that "because some risk of pain is inherent in any method of execution, [the Court] ha[s] held that the Constitution does not require the avoidance of all risk of pain." *Id.* at 2733.

Petitioner is therefore asking this Court to modify its precedents and alter the substantive Eighth Amendment rule for determining when a constitutional violation exists in the first place. Petitioner does not point to any circuit precedent supporting this request. The courts of appeals have applied *Glossip* and *Baze* uniformly, and they have required prisoners to meet both elements of the established test. *See, e.g.*, *Whitaker v. Collier*, 862 F.3d 490, 499 (5th Cir. 2017), *cert. denied*, 138 S. Ct. 1172 (2018) (rejecting challenge to use of compounded pentobarbital

in part because plaintiffs failed to plead an alternative method of execution); *In re Ohio Execution Protocol*, 860 F.3d 881, 890-91 (6th Cir. 2017) (en banc), *cert. denied sub nom. Otte v. Morgan*, 137 S. Ct. 2238 (2017) (rejecting challenge to three-drug protocol using midazolam in part because plaintiffs failed to show alternatives were available to the State); *Zink v. Lombardi*, 783 F.3d 1089, 1103 (8th Cir. 2015) (en banc) (per curiam) (rejecting challenge to use of compounded pentobarbital in part because plaintiffs failed to plead an alternative method of execution).

This is true even in as-applied challenges similar to petitioner's. *See, e.g., Hamm v. Comm'r, Ala. Dep't of Corr.*, 725 F. App'x. 836, 837, 841 (11th Cir. 2018) (per curiam), *cert. denied sub nom. Hamm v. Dunn*, 138 S. Ct. 828 (2018) (inmate with lymphoma, enlarged lymph nodes, and history of intravenous drug use); *Arthur v. Comm'r, Ala. Dep't of Corr.*, 840 F.3d 1268, 1288, 1305 (11th Cir. 2016), *cert. denied sub nom. Arthur v. Dunn*, 137 S. Ct. 725 (2017), *reh'g denied*, 137 S. Ct. 1838 (2017) (inmate with hypertension and coronary disease); *Gissendaner v. Comm'r, Ga. Dep't of Corr.*, 779 F.3d 1275, 1283 (11th Cir. 2015) (per curiam) (obese female prisoner at risk for sleep apnea). Petitioner gives no convincing rationale to depart from the standard established in *Glossip* and *Baze*. Indeed, "there is no logical reason why there should be a readily available alternative requirement in facial challenges to lethal injection protocols but not to as-applied challenges to them." *Gissendaner v. Comm'r, Ga. Dep't of Corr.*, 803 F.3d 565, 569 (11th Cir. 2015) (per curiam) (footnote omitted).

III. The Court should not modify its precedents and create a new exception for as-applied challenges to methods of execution.

Aside from the precedential weight of *Glossip* and *Baze*, there are strong reasons not to create the as-applied exception petitioner seeks.

First, there would be a flood of litigation as a result, and the exception petitioner seeks would swallow the *Glossip/Baze* rule. Petitioner tries to limit the requested exception to one "based on an inmate's unique medical condition." Pet. Br. 38. But each prisoner, like each individual person, is medically unique; thus, every capital case involves prisoners with unique medical conditions. Perhaps not many prisoners suffer from cavernous hemangioma as petitioner does, but as-applied challenges would not be limited to only those inmates with rare diseases. The particularities of each individual prisoner's medical history in combination with even common conditions create virtually limitless avenues for these types of challenges. *See, e.g.*, *Gissendaner*, 779 F.3d at 1279 (inmate alleging status as obese female renders lethal injection unconstitutional as applied to her). Because the difference between facial and as-applied challenges in this context is less than clear, as discussed above, each prisoner raising a method-of-execution claim would construe their claim an "as-applied" challenge to evade the established second element of the *Glossip/Baze* test.

Moreover, as this Court has already recognized, requiring prisoners to establish an available alternative method of execution ensures that challengers cannot incrementally foreclose States from carrying out the death penalty. *See Glossip*, 135 S. Ct. at 2733-35; *Baze*, 553 U.S. at 51. Petitioner complains that the Court should not place on him the burden of "custom-design[ing] his own

execution" by requiring him to produce evidence of available alternatives. Pet. Br. 4. But the burden of establishing an available alternative rightfully rests with the prisoner to show an Eighth Amendment cruel-and-unusual punishment violation. The more lenient test petitioner proposes would effectively place the burden on the States, resulting in repeated and lengthy litigation and indefinite delay in carrying out death sentences. Prisoners would challenge each alternative method subsequently adopted by the State as lacking in some way due to the prisoner's unique anatomy, history, or combination of conditions.

This is precisely what the Court sought to avoid in *Baze*:

> Given what our cases have said about the nature of the risk of harm that is actionable under the Eighth Amendment, a condemned prisoner cannot successfully challenge a State's method of execution merely by showing a slightly or marginally safer alternative.
>
> Permitting an Eighth Amendment violation to be established on such a showing would threaten to transform courts into boards of inquiry charged with determining "best practices" for executions, with each ruling supplanted by another round of litigation touting a new and improved methodology. Such an approach finds no support in our cases, would embroil the courts in ongoing scientific controversies beyond their expertise, and would substantially intrude on the role of state legislatures in implementing their execution procedures—a role that by all accounts the States have fulfilled with an earnest desire to provide for a progressively more humane manner of death.

Baze, 553 U.S. at 51.

These issues are compounded by the fact that, as this Court has acknowledged, the available means to carry out lethal-injection executions are already shrinking due to efforts by death-penalty opponents to limit the supply of execution drugs. *See Glossip*, 135 S. Ct. at 2733-35 (explaining that death-penalty opponents obstruct the execution-drug supply until the death penalty is practically impossible to administer and challenge the execution protocol whenever the method inevitably changes); *see also In re Ohio Execution Protocol*, 860 F.3d at 892 (noting that "death-penalty opponents successfully prevented Ohio (along with other states) from obtaining the drugs necessary to use the one-drug protocol"). The existing execution protocols in use by the States are valid, and the Court's Eighth Amendment doctrine should not force States to engage in an ongoing quest for alternative methods of execution that differ for every individual circumstance.

CONCLUSION

The judgment of the court of appeals should be affirmed.

Respectfully submitted.

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